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A STUDY OF THE DEVELOPMENT OF MUSICALITY IN THE JUNIOR HIGH SCHOOL AND THE CONTRIBUTION OF MUSICAL COMPOSITION TO THIS DEVELOPMENT. FINAL REPORT.

BY- KYME, GEORGE
CALIFORNIA UNIV., BERKELEY
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DESCRIPTORS- *MUSIC EDUCATION, *JUNIOR HIGH SCHOOLS, *MUSIC READING, INSTRUCTIONAL MATERIALS, *CURRICULUM DEVELOPMENT, CREATIVE ACTIVITIES, EVALUATION, TESTS, *LISTENING SKILLS, FILMS, TAPE RECORDINGS, PERFORMANCE, TEACHING PROCEDURES, TEST CONSTRUCTION, TEST RELIABILITY, HUMANITIES, BIBLIOGRAPHIES, MUSIC ACTIVITIES, BERKELEY,

DEFINING MUSICALITY AS THE ABILITY TO GRASP A MUSICAL IDEA IN ITS TOTALITY, THIS RESEARCH INVESTIGATED THE RELATIVE EFFECTIVENESS OF MUSICAL PERFORMANCE (BOTH ORCHESTRAL AND CHORAL), GUIDED LISTENING, MUSIC READING, AND MUSICAL COMPOSITION AS MEANS OF DEVELOPING SUCH MUSICALITY. THE INSTRUMENT OF EVALUATION WAS A TEST OF AESTHETIC JUDGMENTS IN MUSIC DERIVED FROM THE WING, HEVNER, GORDON, AND KYME TESTS OF MUSICALITY WHICH ARE EMPIRICALLY VALIDATED WITH TEACHER RATINGS OF PUPILS. NINE JUNIOR HIGH SCHOOLS COMPRISED THE SAMPLE. THE 3,083 STUDENTS PARTICIPATING INCLUDED A ZERO CONTROL SAMPLE OF 671 STUDENTS WHO TOOK NO MUSIC CLASSES DURING THE TIME OF EXPERIMENT, AN EXPERIMENTAL SAMPLE OF 555 WHO WERE TAUGHT COMPOSITION, 645 ORCHESTRA STUDENTS, 737 CHORAL STUDENTS, 405 WHO PARTICIPATED IN GUIDED LISTENING, AND 70 STUDENTS CLASSED AS A MUSIC READING CONTROL. THE STATISTICAL TREATMENT OF THE DATA (PRE- AND POST-INSTRUCTION TEST SCORES) UTILIZED AN ANALYSIS OF COVARIANCE. THE EXPERIMENTAL SAMPLE SHOWED SIGNIFICANT GAINS COMPARED TO THE ZERO CONTROL (F VALUE=54.47), THE CHORAL SAMPLE (F=29.42), AND THE LISTENING CONTROL (F=11.78). THE GAINS OF THE ORCHESTRAL AND CHORIC READING SAMPLES WERE NOT SIGNIFICANTLY DIFFERENT FROM THOSE OF THE EXPERIMENTAL. ANALYSIS OF DATA, SCHOOL BY SCHOOL, REVEALED THAT MUSICAL COMPOSITION IS MOST EFFECTIVE AT HIGHER SOCIOECONOMIC LEVELS, THOUGH INSTRUMENTAL PERFORMANCE IS THE MOST UNIVERSAL EFFECTOR. THE GUIDED LISTENING PROGRAM WAS NOT PRODUCTIVE FOR SCHOOLS CLASSED AS CULTURALLY DEPRIVED. MUSIC READING WAS THE MOST EFFECTIVE LEARNING TOOL FOR THE LOWER SOCIOECONOMIC SCHOOLS. (HM)

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BY
GEORGE KYME

UNIVERSITY OF CALIFORNIA
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U.S. DEPARTMENT OF
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George Kyme

July 1967

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University of California

Berkeley, California

CONTENTS

Page

INTRODUCTION 1

Statement of the Problem 3
Hypothesis 4
Background 4
Proposed Instrument of Evaluation 8
Literature Related to the Experiment 8
Literature Related to the Proposed Evaluation 13

METHOD 20

Time of the Experiment 20
Make-up of the Population 20
Brief Description of the Experimental Curriculum 21
Music Reading Curriculum 22
The Composition Curriculum 40
Description of the Listening Curriculum 41
Performance Curriculum 46
Developing the Instrument of Evaluation 47
Description of the Tests Used as a Preliminary Battery . . . 47
Item Statistics of the Test of Aesthetic Judgments in Music . 68
Difficulty of the Items and Their Variation 68
Reliability Indices of the Items 68
Validity Indices of the Items 69
Test Reliability and the Error of Measurement 69
An Empirical Analysis of Item Clusters 71

RESULTS 75

DISCUSSION 86

CONCLUSIONS AND IMPLICATIONS 90

SUMMARY 92

REFERENCES 98

APPENDIXES 103

A. Exemplary Lessons in Musical Composition . . A-1 to A-80
B. The Music Reading Curriculum . . . . B-1 to B-51
C. The Listening Program: Music as a Humanity . C-1 to C-53

Eric Document Resume

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INTRODUCTION

The purpose of this study has been to develop and redesign instructional materials and methods in the field of elementary musical composition that would contribute to the development of musicality in students at the junior high school level. Concomitantly, it has been anticipated that this study would lead to the development of a much-needed instrument of evaluation in musical growth, and that it might add to our knowledge of the underlying factors which contribute to musicality. The impetus for this study was provided by certain recommendations suggested by the Seminar on Music Education held at Yale University from June 17 to June 28, 1963. Since this research was based on the Palisca report of the Yale Seminar (46), a review of that report would suggest the underlying rationale of this study.

The twelve-day seminar represented a new departure in several respects. It was probably the first time in recent history that such a cross section of professional interests in music was achieved in an extended conference in music teaching. The participants did not come as representatives, but as individuals. In spite of their diversity, the participants had much in common. Each was concerned about music education, but few had participated before in curriculum development. Most, therefore, could view the problems set before them with interested detachment. They could also appraise current practices in music education from a certain distance combined with an intimate knowledge of the musical issues. Most had grown up within the educational system that they wanted to revise. Some felt grateful to this system for providing them with what they considered to be a good foundation; others looked back and wondered if they had not acquired musical competence in spite of it. The following statements, taken verbatim from the report of that seminar, indicate the need for this study:

> Dissatisfaction with the condition of music in our schools is not a recent phenomenon. Various organizations of music teachers have long been concerned with improvement of method and scope. The realization that elements of challenging intellectual and aesthetic substance are too often lacking in the music curriculum led the Music Educators National Conference, for example, to focus attention in its national meeting in 1962 on "The Study of Music, An Academic Discipline." Two professional societies outside the immediate field of elementary and secondary education, The American Musicological Society and the College Music Society, have also been actively exploring means for strengthening teaching at these levels through their committees on local music, both appointed in 1948.

Musicality:

The development of musicality is the primary aim of music education from kindergarten through the twelfth grade. Musicality is universally understood by musicians, but it is a quality difficult to define. The analogous quality with respect to language would be verbal ability. Essentially it is the capacity to express accurately through pitch and time the mental image of a musical idea. Conversely, it is the capacity to grasp in its completeness and detail a musical idea heard. It can be assumed that a degree of musicality is a natural attribute of everyone. For each pupil there is a way his particular share of it can be tapped and developed. . . .

Curriculum Basis:

Musicality is developed through vocal and instrumental performance, bodily movement, attentive listening and ear-training, and vocal and instrumental creation, both improvised and written. These must be understood as components of a simultaneous and continuous process. . . .

Bold new approaches in music teaching that would bring about a maximum of reading proficiency should be tried, it was said, and research should be concentrated on this objective.

Repeatedly the obligation of professional musicians, drawn from the community, was advocated as an extension of the school's resources.

Methods:

The student should be guided to think of music in the way the finest musicians do. Within the limitations of his skills--and to the highest degree practical--the student then operates on all fronts as if he were a totally experienced, all-around musician.

Creative Activities:

A correlative of prime importance to performing is creating music. It should accompany the other activities from the outset. Improvisation, inventing fixed music not written down, inventing music recorded on tape, composing in normal notation; these must be continuously cultivated from the earliest grades. Composing is an important learning tool, a sure developer of musicality in students at all levels of talent and age. Indispensable and integral to composing is the rehearsing and performing of all student work. Compositions, for this reason, should be written for the forces at hand and for the skills available.

The young child is encouraged to invent his own system of communicating his compositions to others in writing. At first the student finds simple symbols for up and down, loud and soft, slow and fast, and for other ingredients in his creations. The desire to have others play his work accurately awakens his interest in a more precise notation. He is thus led to learn the standard notation.

Among the kinds of musical creation appealing to children and beneficial to them are those which link music to dramatic performances. Classes should improvise fragments of drama with music and dance. Miniature operas or musical plays can be exciting collective class projects.

Evaluation:

Because classroom courses have been the exception in music, testing has not progressed at the rate it has with other fields. There are few standardized tests for talent and achievement, and these have not won any widespread acceptance. Preparation of tests should be under the direction of subject-matter specialists, with psychologists used as consultants.

This research set itself the task of establishing the basis for a curriculum in which musicality would be the main objective to which the development of various musical skills would constantly refer.

Statement of the Problem

The development of musicality is the primary aim of music education. Development of musical sensitivity and the ability to make aesthetic judgments in music is of great concern to music educators. Most teachers, however, are not in agreement on how to bring about growth in musical sensitivity. Some believe that performance--the ego-involvement of participation in music groups--is required if sensitivity to music is to be developed. Others suggest that a music literature course is required, and they scorn those whose sole knowledge of music is that which is at their own fingertips. Still others seriously believe that musical composition, admittedly at a primitive level, is essential if one would relive the creative processes of the music composer and thus be in the best position to appreciate his music.

It is the purpose of this investigation to study the development of musicality at the junior high school level and to ascertain the contribution of creativity--i.e., the composition of music--to this development. Musicality, as an operational term, is defined as the capacity to express accurately, through pitch and time, the mental images of a musical idea. Conversely, it is the capacity to grasp in its completeness and detail a musical idea heard.

Since it is the intent of this study to develop instructional materials and methods in the area of elementary musical composition that, hopefully, will contribute to the development of musicality in students at the junior high school level, a limitation needs to be placed on the definition of musicality as proposed by the Yale Seminar. The term "musicality" will be defined for this experiment as the capacity to grasp in its completeness and detail a musical idea heard. The necessity of the delimitation is obvious. The inclusion of the term "the ability to express a musical idea" demands consideration of such varied means of expression as to make the testing of a hypothesis totally dependent upon the interpretation based on the means of expressing musical ideas. On the other hand, the ability to understand music is a major outcome of the various facets of music education and more readily lends itself to measurement. The stringent measure of this latter capacity will be a measure of aesthetic sensitivity in music. The word "aesthetic" is thus used as in its Greek origin, aesthetikos, which means "perceptive."

Hypothesis

The following hypothesis becomes feasible. Aesthetic sensitivity in music, a term used to describe the organizing factor of the elements of auditory imagery, is dependent upon the capacity to grasp in its completeness and detail a musical idea heard. It is hypothesized, therefore, that instruction in musical composition, implying knowledge of musical structure, design, balance, unity and variety, given to an experimental sample of seventh grade students, will be reflected significantly in the scores of these students on a test of aesthetic sensitivity in music, when compared to the scores, first, of those seventh grade students who have received instruction in instrumental and vocal music performance classes; second, of those who have received instruction limited to guided music listening and rote singing; and, finally, of a zero control group which has received no school music instruction.

Background

Mankind views with awe the explosion of knowledge in the scientific world during this last decade, and the extreme interest in the early identification and nurture of creative minds in any field which has been promoted by educators and defended in terms of the nation's needs is also reflected in the trends in music education. To teach music creatively and to teach for creativity in music has become the battle cry.

Strang (60), writing in a National Education Association pamphlet on creativity, succinctly observes:

> In a school whose lockers are alike, the gym suit is a uniform, the school cafeteria serves a one-plate lunch, and whose children leave school for houses which are alike, row after row, with streets full of cars alike from bumper to bumper, sameness seems to surround them. The school must use increasing caution to avoid the pressures that could make each classroom a mold which would produce sameness in thinking and performance. Awareness of creativity in the arts, with its urge toward originality and its

freedom of experimentation, can preserve the uniqueness of the individual, which is so precious to a democracy. If students are encouraged and given helpful criticism in their creative endeavors, they will continue to exercise initiative and independent thinking in many areas of learning.

The term "creativity" has had varied connotations in the junior high school classroom. Yet the conscientious teacher, in her attempt to teach for creativity, has examined the multi-facets of music education from almost every viewpoint except one, namely, musical composition.

"Creativity in music implies much more than the idea of composing music," Strang summarizes:

> As you choose the right instrument to play in the rhythm band to express a given mood effect, you're being creative. As you decide how fast the music ought to go in order to express the meaning of the words, you're being creative. When an individual takes part in the performance of music, he has a direct and very personal experience in making something beautiful. The elements of judgment and evaluation as well as that of imagination are involved in interpreting music. The performer must decide what the composer means and relate that meaning to his own background of experiences. This very act is its own motivation for further adventures in music. The concept of active doing implies participation on the parts of the teacher and the students.

Except for recent and rare exceptions, musical composition has not entered the junior high school classroom for obvious reasons. "How can anyone be taught to compose who has little or no command of the musical language?" the teacher asks. It would appear that to use composition as a means of teaching this control of the language would be a sacrilege--a travesty on the work of mature music creators. As one consultant for this project stated, "This is similar to calling the book report my son is making on Asia a piece of research simply because he has searched out the information in the Book of Knowledge." With this recognition of the obvious redefining of the word "composition" in the eyes of the accomplished musical composer to mean teaching basic musicianship through the writing of music, we propose basically to provide the student with a means of access to music through his own efforts with his pen.

It is remarkable that composition in music should find such small usage in music education in the public schools. Teachers are probably of the opinion that composition is for the musical elite--that it takes a special talent to compose music--and therefore hesitate to attempt to teach all children in musical composition. They forget that we have "Sunday painters." Painting is not restricted to the Rembrandts of the world. Teachers do not hesitate to teach children to create poetry, but they stop short when a musical adaptation is called for. Composition in music could very possibly serve as that bold new approach to reading music, sought after by the Yale Seminar. It is perfectly obvious that reading music and writing music are but two sides of the same coin. The skills and insights required for both are one and the same.

There is reason to believe that most children can be taught to compose music of the folk-song variety. In the rural South, hymn-tunes are composed by great numbers of persons in the church "singing schools." In several schools in the San Francisco Bay Area, children in the primary grades are taught to create songs. Most importantly, we must think of creativity as a developmental process rather than as a spur-of-the-moment happening.

In the arts we come as close to the definition of creation as it is possible to do in this world. It has been said that only God can create from nothing, yet the musician starts with silence, a kind of "nothing." The minute the musician produces a tone, he is creating, from nothing, a sound--a thing that has physical existence and practical meaning for the listener. The beginner in music struggles with producing a tone. As his skill grows, he tries to make a better sound. As he continues to mature musically, his imagination tells him what kind of sound would be best at a certain moment in a certain composition, for a certain mood effect. In this way, too, he is being creative.

The actual work that the child does in each of the art media is, possibly, more meaningful to him than the talking which the teacher does about a musical composition, a painting, a folk dance, or a work of literature. Interpreting the part of a character in an operetta, a poem, or a song is a very real and vital experience. The act of doing is frequently more important than the product itself.

Recognition of the fact that all individuals are creative in their own way is essential in the educational process. This has been said and confirmed again and again by specialists in music and art education. This concept has been further reinforced by the Carnegie Corporation of New York, and reported by Donald W. MacKinnon (31), director of the Institute of Personality Assessment and Research, at the University of California at Berkeley.

> Intelligence alone does not guarantee creativity. Clearly, a certain degree of intelligence and, in general, a rather high degree, is required for creativity. Above that point the degree of intelligence does not seem to determine the level of one's own creativeness. Intelligence is a many-faceted thing. There are many types of intelligence or intellectual functioning. The aesthetic viewpoint permeates all of a creative person's work. He seeks not only truth, but also beauty.

The Secondary School Principals, National Association, agree in their publication, The Arts in the Comprehensive High School, that the arts are subject to disciplines which emphasize the use of intellect as well as the development of sensitivity and creativity and the capacity to make reasoned aesthetic judgments in extending the range of human experiences. Leonard and House (29) reiterate this view of music education: "Music education should be primarily aesthetic education. An essential correlary to this belief is that music education should give primary attention to developing students' ability to perceive musical meanings."

Though it is interesting to know from MacKinnon's studies of creative persons that a significant attribute of creative people is aesthetic sensitivity, the attitude of this research is much more mundane. Creative endeavor, here restricted to musical composition, is a means to an end--that end being to develop musical sensitivity in junior high school students. While it is believed that working with music creatively will enhance a student's ability to attend to the musical stimulus, the real purpose of composition will be to acquaint the student with music. The common term is to "appreciate" music, a word which we have shunned in this research, though perhaps with a precise definition its use would be more meaningful to the reader: "To appreciate is to assess at true value." Appreciation does not necessarily mean to like, and thus one may assess a man's fault or appreciate an opposing point of view. To assess music at true value is to make an aesthetic judgment. There is considerable evidence that we like that music which we know. In order to make judgments of appropriateness, the listener is required to have considerable insight into the structure of music. It is believed, therefore, that by dealing with the elements of music in a systematic way through composition, even at a primitive level, the student may thus acquire additional insights into music which will permit him to make aesthetic judgments in music.

Bennett Reimer (49), in discussing the development of aesthetic sensitivity, suggests that the components are (1) perceiving the musical content and (2) responding to it in a meaningful way. It involves three avenues of inquiry:

> The first is concerned with developing an understanding of musical concepts or the constituents and expressive elements of music and factual knowledge about music that will serve to increase musical insight.
>
> The second has to do with examining or analyzing the musical content--its interrelationship or how it is put together. This inquiry is always in terms of its expressive values, however.
>
> The third method of inquiry Reimer calls performance, which includes all possible means through which students can actively explore, experiment with, and manipulate various musical concepts.

Although it is the central concern of this research to ascertain the value of "creativity"--definable as the composition of music--in developing musicality at the junior high level, it proposes to evaluate the curriculum, not in terms of how well the young composer may be taught to express himself creatively, but how well he can understand musical ideas which have been expressed. In a word, we shall put to the test MacKinnon's description of the creative person: The aesthetic viewpoint permeates all of a creative person's work. He seeks not only truth, but also beauty.

Proposed Instrument of Evaluation

It is a truism that teachers should measure what they have taught. It might be argued that the best measurement of a course in composition would be the ability of the student to express musical ideas through composition; however, in comparing ways of developing musicality in the junior high schools, it is essential that the evaluation instrument shall be culturally fair. Thus, it would appear that a fair test of musicality would be the ability to understand musical ideas expressed. This conclusion led to the consideration of a test of musical sensitivity as measured by a test of *aesthetic judgments in music* to evaluate growth in musicality.

Specifically, it is believed the aesthetic judgments test should be a judgment of musical appropriateness measuring this aspect in melody, rhythm, harmony, and form. Such a test of aesthetic sensitivity in music was to be derived from the *Hevner Tests of Music Appreciation*, the *Wing Tests of Musicality*, the *Kwalwasser-Dykema Tests of Melodic Taste and Tonal Movement*, the *Gordon Tests of Musical Sensitivity*, and the *Kyme Test of Aesthetic Judgments in Music*. The composite test was given as a preliminary test and from it a final test was derived which was validated empirically; that is to say, only those items were retained for the final test which differentiated significantly between junior high school students who were judged by their teachers to be the most musical and those students who were assessed as being least musical. This reconstructed test served as the measure of growth in musicality for the seventh grade experiment.

Literature Related to the Experiment

An early step in the formulation of a curriculum leading to composition of music by the junior high school student was to survey current methods and materials which have as their focal point the development of creativity in music with children. Included in this survey were the *Das Schulwerk* of Carl Orff, the Curwen *Tonic Sol-Fa Books*, the Steiner *Musicianship Texts*, and the Zoltan Kodaly *Hungarian Musicianship Texts*. Members of the research staff were privileged to participate in three workshops held in California in the summer of 1966 in which Zoltan Kodaly and Madame Elizabeth Szonyi acted as clinicians. Moreover, representatives of the Kodaly and Orff training schools have continued to act as consultants for the project. They have held inservice training institutes for the teachers and supervisors participating in this investigation.

This project is especially indebted to the Hungarian composer, Zoltan Kodaly, whose advice was sought during his symposiums held on the University of California campuses as well as on the Stanford campus. Kodaly was eminently qualified to serve as a guiding light for this endeavor for he is universally accepted as one of the most significant of twentieth-century composers. However, Kodaly was not content to serve as a consultant in the role of a "great composer." He wished to influence those who would in time bring about a new attitude in music education.

Kodaly postulated that good musicianship can only develop from the pure sense of intonation that unaccompanied singing based upon a solid foundation of *sol-fa* syllables will unfailingly give. In the course of a number of visits to England, Kodaly observed the highly developed singing in the schools, a result of the work by John Curwen and his followers. To this he expressed indebtedness for much stimulation which helped him with his work with Hungarian children. Kodaly wrote in the preface of one of his books, "I am now very pleased to return to the English what I learned from them and was able to adapt to our needs in Hungary." It was from Kodaly that information was received concerning texts for guiding the young composer which were published by John Curwen Publishing Company in London, much of which has been borrowed unashamedly by this research.

The educational theories of Kodaly have been recently expressed in the writings of several American music educators. Richards (50) and Darazs and Jay (10), as exponents of the Kodaly method in the United States, have published concise interpretations of his theories. Their interpretations can be summarized briefly as follows: The foundation for the Kodaly method, as with Montessori, Coleman, and Orff, is rhythm. Rhythm is introduced through the rhythm syllables derived from the French time names invented by Abbé Aimé, Paris. Graphic notations, based on the poetic stress marks for long and short accents, are used to reinforce the rhythm syllables which come out of the chanting of traditional rhymes. The instruments of learning here are the voice, and the hands and feet, which are used for clapping and stamping.

Music reading is done with *sol-fa* syllables reinforced with hand signs derived from the Curwen system. At first, as in the Orff method, songs are limited to the pitches *so* and *mi*. Eventually new pitches are introduced which expand the vocabulary to songs based upon pentatonic and major and minor diatonic scales. Since the hand signs represent the syllables sung, they act as a reinforcing agent in the learning process.

Pitch notation is taught from the very beginning by placing the *sol-fa* syllables graphically on a three-line staff. In this way, the standard five-line staff is gradually introduced with each new syllable. Through the movable *do* system, the student acquires a facility for writing and transposing scales and melodies in various keys and clefs.

One essential difference between the Darazs and Jay text and the Richards charts is that the former emphasizes written composition from the beginning. As new pitches are learned, the student is encouraged to invent original melodies based upon them. Improvisation, as an aspect of the compositional approach, is emphasized. Here the techniques of canonic imitation are especially effective through the employment of the pentatonic scale.

The methods and techniques developed by Carl Orff and his followers are also of increasing interest to American music educators. He has achieved popularity in this country as a result of performances of his stage works, such as "Carmina Burana," "Catulli Carmina," "The Wise Maiden," and "Der Monde"; but the composer's attention has long been divided between such compositions and his educational interest. Orff is probably the favorite living German composer, at least to the average music lover of that country. He started his experiments in music for children in the thirties, after years of dissatisfaction with prevailing methods and materials. He based his system on the belief that the learning processes of children follow the same pattern as that of the whole race of mankind. Just as primitive man used free body movement in dance and simple rhythmic drum patterns, Orff started children with drums suited to their physical size and skill and combined bodily movements with the beat of the drum. He also added rhythmic chants, synchronizing the spoken rhythm with the movement. Next came melodic experimentation. Many primitive peoples start their first musical utterances by using only one or two pitches, and most finally progress to a five-tone scale. Orff used this same sequence in planning musical experiences for children. He expanded the melodic vocabulary only after the children had had experience with the simple melody.

Carl Orff's philosophy is that music education first of all should develop the child's ability to improvise. The child must be helped to make his own music which grows out of his own experience in speaking and singing and moving and playing. Orff believes that children should be allowed to discover music for themselves, starting on a simple, almost primitive level. By encouraging creative expression at an elementary level of musical expression, the child is not immediately indoctrinated into sophisticated modern music; neither is he expected to master difficult instruments, such as the violin, before he experiences music. Instead he is led gradually from natural speech patterns to rhythmic activities. Melodies grow out of these rhythmic patterns and lead to a simple harmony.

Rhythm, Orff says, precedes and is stronger than melody, while melody precedes and is stronger than harmony. For the child and for primitive man, speaking and singing are intimately connected. This is a connection which leads naturally and imperceptibly from speech patterns to rhythms. In the Orff methods, the speech patterns progress from the very easy to the more difficult, and eventually a second part is introduced. Rhythmic exercises without words are carried on by hand clapping, knee slapping, stamping, and finger snapping. Once they are learned they are used to accompany single-instrument melodies, speech patterns, and songs. These simple rhythmic patterns repeated throughout several measures or even throughout an entire song are called ostinati.

Nash (38) and Rinderer (52) have developed music programs which utilize the principles outlined by Orff's Das Schulwerk series. Although neither version is as intensive, both vary little from Orff's basic assumptions.

The Schulwerk begins with pentatonic melodies, because, as Orff says, music based on a five-tone scale represents a stage of development which closely corresponds to the mentality of children. Before using the full five-tone scale, several melodies of two tones, and some consisting of three tones, are introduced. The melodies are accompanied by clapping, stamping, and percussion instrumental accompaniments such as xylophones, triangles, and tambourines. Concurrently with elementary exercises go the practice of speech patterns and rhythm exercises. Orff considers rhythm to be the most basic study for children.

In recent years a number of articles have appeared in the Music Educators Journal that recommend written composition as an effective and creative means for teaching general music in elementary and secondary schools. Thomas (65) and Mills (35), for example, cite various techniques which would best bring about desired goals of music education, but they do not offer an organized curriculum or method of evaluation as such.

Alper (1) discusses twentieth-century compositional techniques derived from studies made at Bennington College during the six-week Music Institute of 1962. The learning concepts for the application of these techniques are outlined by Thomas (64), who describes the results of his efforts to incorporate the basic ideas of the Bennington study into the music program of Nanuet Junior-Senior High School.

Silverman (58), in a study entitled "Ensemble Improvisation as a Creative Technique in the Secondary Instrumental Music Program," explored the possibility that students of high school instrumental music could learn and use ensemble improvisation successfully. The conclusions drawn showed this activity to be uniquely successful in developing the creative potential of gifted high school music students.

In the spring and summer of 1964 three pilot projects were sponsored by the Contemporary Music Project under the chairmanship of Norman Dello Joio. These experimental projects were designed to study effective methods of presenting contemporary music through creative experiences, improvisation, and composition. Each project focused on a specific area of study. The Contemporary Music Project has recently launched a broadly conceived and intensive program designed to improve "comprehensive musicianship" at the college level. Comprehensive musicianship is defined in the Project's brochure as incorporating conceptual knowledge with technical skills to develop the capacity to experience fully, and the ability to communicate the content of, a musical work. The "technical skills" include aural training, composition, and performance, where aural training is the ability to understand the structure of sound, to conceive musical sound from its notation, and to demonstrate the understanding of musical structure through musical notation, verbal report, and performance. While the importance of script is maintained, aural proficiency and a focus on the musical utterance are paramount.

The Baltimore, Maryland, and San Diego, California, Projects (11), for example, were organized to provide in-service seminars for music teachers in conjunction with pilot classes at selected grade levels in various types of schools. The seminars involved the analysis of contemporary music and assignments in composition based on the techniques and styles studied. The teachers then tested these materials in the pilot classes. Another aspect of these projects was to identify contemporary music suitable for use in the public schools.

The Farmingdale, New York, Project (11) was organized somewhat differently. In this study, a selected group of thirty-one musically talented students from the sixth through eighth grades was taught by two types of creative teaching. The first method attempted to demonstrate experimental techniques in music composition using twentieth-century idioms; the second attempted to demonstrate the development of musical resources through rhythmics, singing, improvisation, and composition.

Since all three projects were designed to explore creative approaches rather than to develop a curriculum, the results were not to be construed to imply that creative experiences should necessarily begin with contemporary music. However, from the success of these attempts, further investigation was recommended, particularly in the area of comparing the creative approach and the traditional methods over a long period of time.

The emphasis upon creativity in music education is not necessarily a new one. The philosophies and methods outlined by Montessori (36) and Coleman (7) deal directly with teaching music creatively. However, two criticisms may be leveled at these methods: (1) Their use of creativity does not involve or sequentially lead to the standard literature of music. Because of this, objectives appear ambiguous and the discovery process is solely dependent upon the previous "innate" experiences of each learner. (2) Creativity, as employed in these methods, focuses primarily upon improvisation with little or no writing involved. In the present study, creativity is considered a problem-solving process which emphasizes written music composition in the styles of various composers throughout history. Composition should be utilized in conjunction with the other areas of musical experience--singing, reading, playing, and listening. If a firm basis for transfer of learning is provided, the broader objective of music education, developing musicality, may be achieved.

Of the music educators directly concerned with the problem of musical literacy, Hartshorn (23) proposes a pedagogy based on the premise that what music communicates and how it communicates are one and the same thing. He insists that learning concepts of tone is the first order of business in teaching children music. In a paper advocating the teaching of musical concepts in elementary grades, Asahel Woodruff, of the University of Utah, warns that elementary school curricula that rely exclusively on "spontaneous expression" in music, visual art, and dance neglect the discipline essential to every artistic statement. He outlines a procedure for teaching concepts that progresses from percept to concept to testing the concept in practice.

For a project on experimentation in school music education, Ronald Thomas (64) collected descriptions of 92 innovative programs from 132 schools in 36 states. He defines four categories of innovation: Content (structure, sequence, or form of the study), Strategies (techniques, organization, or procedures), Media (instructional aids), and Performance and Literature.

Innovative approaches to content include activities encouraging individual exploration of the musical process, the stressing of group composition of vocal and instrumental pieces, and the acquisition of vocal skills as a logical outgrowth of creative activities.

New and imaginative strategies have been devised as solutions for traditional problems. Dictation is used to develop musical memory so that pitch perception becomes an aural as well as a visual experience. Students conducting their own laboratory classes learn from group evaluation, the teacher serving as a "resource" person. Curriculum planning is revolutionized through flexible scheduling and programming that allow for group or individual instruction, and for ensembles.

In studying an approach to musical understanding for secondary school students, Wendrich's project (74) has as its objective the development of musical understanding through listening, performance, and the study of music literature as an academic discipline. The objective is to be attained through the designing and testing of a one-year curriculum consisting of a number of related units. Each unit deals with a particular musical genre and is to be built around a core work representative of that genre.

Literature Related to the Proposed Evaluation

Taba (61), in discussing evaluation of the outcomes of curricula, is of the opinion that the validity of evaluation instruments tends to improve to the degree that the tests (1) are consistent with curriculum objectives, (2) are based on a sufficiently careful analysis of the behaviors to be evaluated, and (3) are addressed to what the students have had an opportunity to learn. In a word, a test should measure what the teacher has taught. Achievement testing thus becomes an important aspect of a broader, continuing process of education that begins with a concern about objectives and ends with an assessment of their attainment.

Since this study has as its central concern the contributions that a compositionally oriented curriculum can make toward increasing sensitivity to music, some consideration must be given to the meaning of the phrase "to express and understand a musical idea," in order to ensure that an appropriate instrument of evaluation is selected. The criteria of evaluation will therefore evolve from a discussion of several bases and what sensitivity to them entails.

Sessions (57), speaking as a listener, performer, and composer, believes that a musical idea is simply that fragment of music which forms the composer's point of departure, either for a whole composition or for an episode or even a single aspect of a composition--a starting point of a vital "musical train of thought." It would appear that a measurement of musical sensitivity does not necessarily require hearing a composition in its entirety.

Although the essence of a musical composition lies in the composer's treatment of a musical idea, of equal importance is the listener's relationship to the music. Sessions distinguishes four stages in the listener's development. First, the listener must hear the music. He must open his ears to the sound and discover whatever point of contact he can find and follow the music as well as he can in its continuity. He must identify with the music without preconceived ideas or strained efforts. Secondly, he must enjoy the music. By this enjoyment, Sessions means listening to music so attentively that conscious response (communication) is experienced only afterwards. Thirdly, the listener must experience musical understanding. He must develop the ability to receive the "full message" of the music by taking the music into his consciousness and re-making it actually or imaginatively (in terms of sensations and impressions remembered) for his own uses. And fourthly, he must discriminate on all levels of his musical experience. In this way, he is able to cultivate a sense of values to which he may refer in his later judgment. He will in fact become a critic--a listener who has become articulate, and who has acquired an ability to put his judgments and values into words. This stage, Sessions feels, is the end-product of the listening process. Here, the aesthetic judgment becomes the natural, full-grown by-product of a total artistic experience.

Greene (17) is in agreement with Sessions and believes that there are three aspects of aesthetic criticism--the historical, the re-creative, and the judicial. Historical criticism, he says, involves the determining of the nature and expressive intent of works of art in their historical context--the appropriateness of the work of art within its historical style and therefore an understanding of the vital stylistic implications. Re-creative criticism involves the imaginative apprehension of what the artist has succeeded in expressing in his work of art. Judicial criticism pertains to the estimation of the value of a work of art in relation to other works of art and to other human values. These three aspects of aesthetic criticism, however, are interrelated and are, in fact, aspects of the same process.

According to Sessions and Greene, then, art is an expression of values. The artist in his creation of a work of art makes value judgments in terms of what he wishes to express. His process of selection is influenced and determined by his personal values, his cultural milieu, and the historical environment and its aesthetic norms. The appreciator, in responding to the work of art, reciprocates through a similar process. He observes, becomes involved, and reacts emotionally and intellectually by making value judgments concerning the appropriateness of the work of art in terms of its uniqueness, historical style, and artistic merit.

Kyme (27) believes that aesthetic judgments indicate a general quality of adjustment to the demands of the musical culture. Aesthetic judgment, he feels, is centered on a pattern of organized perception; that it goes beyond mere sensation; and that aesthetic feeling lies in the relationship between sensation and judgment.

An important consideration imposed upon those studying aesthetic judgment lies in the definition of, or assumption of, absolute standards of goodness. Hevner (24) assumes that the creation of an artist, whose work is generally acclaimed for its merit, is beautiful, and that it is more beautiful than the same creation altered by a deliberate attempt to mutilate its various beautiful qualities. She believes beautiful music is that music which is played and enjoyed by the best of professional musicians and that, obviously, the selection of "good" music on the basis of the majority vote would be a serious error. She argues that one might as well decide that a four-room, frame house is the ideal place to live because the majority of American families live in houses of that type. The judgment of the man on the street is not the measure of musical values. Music is kept alive, rather, by the passionate few.

Schoen (55) defines a musically "good" melody as one that creates a complete impression just as does a properly constructed sentence. There are rules, of course, but a musical-minded person has a feeling for total sequences that is active before knowledge of laws or reasons is obtained, just as a child grows up with a feeling for the fitness or appropriateness of the words of his native language long before he is taught grammar.

Although recognizing a need for the empirical method of validating the items in his test of musical ability, Wing (75) presupposed certain immutable standards in choosing his musical material, as evidenced by this statement: "If a piece of music (a) were taken from the best work of expert composers, (b) were thought good by the consensus of musicians, (c) had survived the test of time, (d) was from a standard edition, it was assumed that it would be representative of good art."

Farnsworth (14) points out that history discloses change in musical standards. The taste of Western culture has changed appreciably from time to time. Leading composers have been nonconformists. Although they study the musical traditions of their period, they almost invariably adapt the rules to fit their own needs. Thus the rules as expounded in the manuals do not remain static, but, rather, are frequently recodified. As an illustration of our changing preferences, let us take the situation of the definite keynote. Although there existed from early days the "final" of the Ambrosian and Gregorian modes, the true key tone, or tonic, apparently did not enter European music until the thirteenth century. It later achieved such a strangle hold on musical practice that in 1893, one authority could say that without a clearly defined tonality, music is impossible. Yet during this same period of the tonic's extreme popularity, people of other cultures were enjoying keyless music, and now polytonal and atonal compositions are almost commonplace in our own cultural area. For another example of taste change, attention can be called to parallel movement, which was so much relished at one time, and then was sternly banned. Now it has reappeared and has achieved a desirable status.

The hypothesis that contemporary taste in music is in a large measure culturally derived can be demonstrated through the data of anthropology. It has been shown that the Occidental love for simple rhythms, careful tuning, sized tonal steps, harmonies, and the tonic effect is not shared the world over. The African's sensitivity for complicated rhythmic patterns was so far beyond the taste and perceptual abilities of many of the early missionaries that they commonly reported the African to be arhythmical. The Chinese often appear oblivious to mistunings; they love music which has no harmony in the Occidental sense of the word. Yet Orientals can learn to love Western music, and, indeed, with continued residence in America, come to appreciate our musical principles and gradually to develop facility in the perception of small auditory differences. When constantly subjected to poor tuning, the American loses his need for, and sensitivity to, pitch exactitude.

Seashore (56) proposed a rigid and verifiable base from which all measurement of aesthetics in music may begin through the measurement of artistic deviations in the various attributes of sound. He indicated that all musical expression is conveyed in terms of the sound wave, and that the psychological attributes correspond to certain physical characteristics of sound. In his analysis of the musical mind, major attention was given to the quantitative treatment of sensory capacities. In insisting that every aesthetic effect in music must correlate with some variation in the sound wave, Seashore based his case upon an atomistic associationist psychology that stems directly from the Fechner (15) tradition. The fallacies inherent in this theory have been pointed out by Prall (48), Dewey (12), and Mursell (37).

To hold that there is nothing in music which was not first in the sound wave is to explain an expressive medium in terms of its physical cause. Further, since we do not hear the sensation of sound, but mental patterns created by the mind through selection and organization, aesthetic judgment implies a sensitivity to values that cannot be measured by a simple sensory test.

In defining the attitute in respect to standards of merit for this investigation, it is believed with Corwin Taylor (62) that the science of aesthetics is not an exact science, but rather a normative discipline dealing with values, and that efforts to base an exact science of aesthetics upon the physics of formalism, ignore the connotative element in art, and hence are inadequate. The investigator is indebted to Mainwaring (32) for this concept of the aesthetic experience. Aesthetic experience he defines as:

> That experience which tends to evoke an aesthetic judgment, that is, a proposition that something is or is not beautiful. One of the most valuable assumptions accepted as a basis for experimentation is that the developed judgment, or taste, is a cultural derivative from innate aesthetic tendencies.

Perhaps some relationship needs to be established between music appreciation and musical ability. Wing (75), in his study of measurement in music, divides musical ability and appreciation tests into two categories. He also makes a distinction between those tests drawn up by musicians, and those drawn up by psychologists. Tests falling into the first category, he points out, are generally based upon the pragmatic point of view of those who are responsible for music education. Psychological music tests, on the other hand, focus on the more theoretical issues. Although both musicians and psychologists have contributed to our present knowledge of music testing, Wing feels that they have tended to disregard each other. In particular, psychologists, in constructing their music tests, have neglected to involve the assessment of "musical appreciation," which refers to the ability to recognize or evaluate artistic merit in music; i.e., making aesthetic judgments about music as they actually exist in the compositions. Instead, they have emphasized only the "musical abilities," which include speed in learning to perform, ability to perform aural tests (recognition of intervals, chords, cadences, and so forth), and ability to compose. Two conclusions may be drawn that apply directly to the selection of a test of musicality for the present study.

The instrument will necessarily be in the nature of a listening-type test; that is, the ability tested will be that of grasping in its completeness and detail a musical statement heard, rather than of expressing a musical idea. This is of particular importance to this study inasmuch as the majority of the students participating in the sample will spend the duration of their lives involved with the listening experience. While it is through the expressing of musical ideas that this study has attempted to implement this development, its purpose is not to produce more composers, but to develop musicality.

The second assumption is that an effective musicality test should cover a wide range of musical genres. The attitude taken in this research has been one of involving the students directly in the ritual of the composer by emphasizing the composition of music in the styles of representative composers throughout music history. Because awareness of style is a key factor in the student's learning situation, the test must be comprehensive enough in this area to permit the effectiveness of transfer.

In developing the tests of aesthetic judgment, the attitude of the investigator was that aesthetic judgments are culturally derived. It was recognized that tastes change and that a performance which is thought to be highly suitable in terms of harmony, phrasing, or melodic line at one age may well be entirely scorned at another. Moreover, it was evident that in varied socioeconomic classes, one could not declare a priori the specific levels each specific population ought to have reached. The test, therefore, as constructed, depended upon an empirical validation. That is to say, those items were utilized which employed aesthetic judgments in music to discover how the most musical children would respond. If such items differentiated between those students rated as most musical by their teachers, and those students rated least musical, then the item was suitable for use in this experiment. The researchers were prepared to accept as correct any response made by those persons identified as most musical. Fortunately, the most musical seventh graders did choose the original versions for all of the items which significantly differentiated between high and low achievers.

Wing outlined several criteria which he considered important in developing musical tests. Four of the criteria are felt to be relevant to this study and are therefore listed below.

1. *The test should fulfill certain statistical criteria of reliability.* Reliability should be determined by test and retest procedure. Unfortunately, this technique is scarcely suitable for a listening test in music, for the mere taking of the test has brought about a change in the individual which will be reflected positively or negatively in the second taking of the test. Since music exists in time, a music test is subject to the changing conditions concomitant with the testing situation. As Wing observed, tests concerned with the aesthetics of music are more subject to individual day-to-day variations in external conditions--the passing of a car, or the howling of the wind--than those concerned with other cognitive abilities.

The measure of reliability which we employed for this study is a measure of internal consistency. It is obtained by determining the correlation of each item to the total score. An important step in developing the proposed test was to discard those items which did not differentiate significantly between the lowest and highest achievers on the test. Each item must correlate significantly with the total test score.

2. *The test should correlate well with an external criterion.* Validity may be expressed in two ways: (a) how well a test measures what it purports to measure, and (b) how well we know what it really does measure regardless of what the test claims to measure. The proposed test will be empirically validated in that, from the preliminary batteries, only those items will be retained which significantly

differentiate between the upper and lower quartiles of music students who have been rated by their teachers as to musicality.

Another measure that should be reported is construct validity, or face validity. In the proposed test, items will be developed by taking short melodies whose essential beauty lies in the realm of melody, rhythm, harmony, or form, which will then be compared to items which have been deliberately mutilated in some one of these aspects. An estimate of construct validity can then be made by determining how well melody items correlate with other melody items, how well rhythmic items correlate with other rhythmic items, and so on for harmonic and form items. A cluster analysis will be made in order to learn more precisely what is being measured.

3. *The test should be acceptable to the profession.* The "profession" is defined here as the music teachers involved in this study. It is quite important that they believe in the ability of the test to discriminate between students rated as least musical and most musical. Since the test was empirically validated on precisely this criterion, and since the teachers, by rating their pupils, identified the musical, teachers are not likely to object to the findings of this research even though the findings may reveal the shortcomings of their own teaching.

4. *The administration of the test should be standardized.* It is assumed that any test used in an experimental situation is standardized. The present test should be constructed in such a manner that it may be administered identically to all samples involved. Length of the test is of particular importance. The duration ought to be adjusted to fit the school period.

In summary, the following criteria were used for the development of a test of musicality:

1. The test should be constructed of complete musical ideas.
2. The test should measure a student's ability to make aesthetic judgments concerning the musical ideas heard.
3. The test should fulfill certain statistical criteria of reliability.
4. The test should correlate well with an external criterion.
5. The test should be acceptable to the profession.
6. The administration of the test should be standardized.
7. The length of the test should be appropriate for school use.

METHOD

The work on the project proceeded along two lines simultaneously: (1) developing and implementing the curriculum, and (2) developing the measure of growth in aesthetic sensitivity to music. Each of these major areas will be treated separately.

In the summer of 1965, fourteen cooperating junior high school teachers and three supervisors were brought to the University of California's Berkeley campus for the purpose of gaining intensive workshop experience with the teaching techniques of Zoltan Kodaly and Carl Orff. These workshops were consummated in August 1966, when members of the project staff participated in workshops with Zoltan Kodaly and Madame Elizabeth Szonyi, Director of Teacher Education in Music at the Budapest Conservatory. Video-tapes were made of these demonstrations for use as teachers' guides for the experiment.

Time of the Experiment

The experiment proper took place in the spring semester of 1966, was repeated with some variation in the fall of 1966, and was replicated in the spring semester of 1967. In each semester, two classes comprised the experimental sample. One class was taught in part by a student teacher and one class was taught solely by the regular junior high school music teacher. In each school the instrumental groups were taught by the regular instrumental music teacher.

Make-up of the Population

In choosing schools to participate in the research, considerable thought was given to the possible samples. This research was directed toward the junior high school level, and the seventh grade in particular. Moreover, its emphasis was on a music education curriculum that would be suitable for urban centers, particularly those whose transient population rendered them least effective in establishing foundation courses in musianship for the elementary grades.

In this endeavor we were most successful. Children generally reach the seventh grade in the immediate San Francisco Bay Area without a great deal of knowledge of the mechanics of music, and only those trained in instrumental music have even the slightest skill in reading or notating music. It was necessary, therefore, to seek a "bold and daring new approach to the reading of music" as prescribed by the Yale Seminar. What was needed was a "visual solfeg"--a concrete representation of the abstract ideas of music. The answer to this problem was the use of "shaped notes" to represent the sol-fa syllables used for reading and writing music. This procedure was eminently successful with the Negro children in the experiment, as it was with our early colonial forefathers who used it in the Singing Schools of the early nineteenth century.

As Riessman (51) states in his book, The Culturally Deprived Child, abstract thinking is ultimately rooted in concrete sensory phenomena. Deprived children need to have the abstract constantly and intimately pinned to the immediate, the sensory, the topical. Since the deprived child approaches abstractions from the concrete, the teacher must do likewise. The population choice also affected the kind and length of the test. Deprived children are not accustomed to being evaluated and are therefore not very test conscious, they have poor auditory habits, and do not concentrate sufficiently on the examiner's illustrations. Sometimes they hurry through the test just to get it over with and to remove themselves from the situation, Riessman observes.

The research was not limited to the culturally deprived, however. In one of the participating junior high schools, musical composition has been taught as an honors course for the most accomplished of the instrumental performers. In the same school, for this experiment, a composition class was instituted for a group of seventh grade students who were below reading level scholastically and who were musically illiterate. Of the nine schools participating in the experiment, three were chosen from the lowest socioeconomic strata. On the other hand, three schools were chosen from the upper middle-class neighborhoods. The remaining three represented a balanced population of Caucasian and minority groups commensurate with the population of the cities as a whole.

Brief Description of the Experimental Curriculum

The first and primary task facing the junior high school teachers in each of the nine experimental schools, preparatory to carrying out the research which was to determine the value of the curriculum and compositional experience, was to develop sufficient basic musicianship; that is, command of the language, which would permit such a curriculum to be attempted. The participating teachers and the research staff were in agreement that composition should not be defined as mere improvisation on tone bells and rhythm instruments, but that the purpose of compositional experience was, in the final analysis, merely to offer another avenue to the music itself.

Some of the teachers emphasized the value of music reading as the requisite skill to acquaintanceship with good music and, in effect, preferred to use the writing of music as the means of teaching music reading. It would be fair to say that the majority of teachers and researchers alike were of the opinion that acquaintanceship with representative master works, preferably through performance, was the chief goal of the experiment in writing music. There were two notable exceptions to this attitude, however. In two schools in each of the two semesters, the experimental class was devoted solely to composition. Seldom in a public school situation can such unadulterated research be instituted. In another school the creative work was almost totally improvisational, for the teacher was strongly influenced by the Kodaly techniques.

Music Reading Curriculum

A crucial problem faced by the junior high school music educators was how to teach successfully the core skill of reading music at sight. It is generally believed that in order to compose, some basic skills must be assumed. Music literacy would be a prerequisite. The opposing point of view is that the writing of music is another avenue to teaching music reading. Teaching a basic command of the language was indeed a major problem in this evaluation.

Despite the universal recognition of the value of music reading as the axis upon which part-singing, creation of original songs, and broadening of repertoire depends, evidence is strong that in the San Francisco Bay Area it was conspicuous by its absence in the junior high schools. Apparently teachers were convinced that efforts to teach children to read music were not compatible with those aims of education which stress a lasting love for, and appreciation of, music by every child. It was said that the early efforts of school teachers to teach (as they were taught) the mechanics of singing music divorced from music itself quite likely created a generation of music haters in our schools and accounted for this hesitancy on the part of our present-day teachers to teach anything that smacks of pedantic drill. As a result, Otto Miessner (34) wrote that every conscientious music educator should be concerned about the low degree of music literacy in America today: "Can we honestly claim to have made progress when most college music education courses still require a full year or more of ear-training and sight-singing because music majors have not mastered the art of tonal thinking and sight-reading?"

Music reading, a performance-response to symbols, is a perennial problem-child, yet comparatively little has been done in research to define the nature of the reading process. Some work has been done in describing the eye movements and some work has been done with the effect of "grouping" of the symbols, the use of beams versus individual notes for each syllable of the lyrics. Some experiments have been done with the use of colors and shaped notes to aid the development of the "vocabulary" of numbers or sol-fa syllables. A number of independent studies have been concerned with the development of methods for teaching rhythmic reading, most of which show quite clearly that neither a non-musical approach nor an arithmetical approach is the key to the problem. Work is still needed to determine how to better organize our perception in terms of the beat or pulsation of the music. How to teach music reading is the crux of the problem and is worth considerable attention here.

The debate which started with the birth of the Music Educators Conference in Keokuk, Iowa, in 1907, still rages strongly today concerning the question of whether to use numbers or sol-fa syllables in reading music. Added to this debate is the instrumental space frame promoted by piano playing teachers who note that pianists are often able to estimate the distances in pitch as the notes fall underneath their fingers. Using this kinesthetic feeling for intervals, children may learn to read music with the use of an instrument.

Not all teachers use sol-fa syllables to estimate pitch. Instead of labeling the degrees of the scale with those initial syllables to the Hymn of Saint John, many prefer to use numbers to designate the scale degrees. They remember that children already know the numbers, and applying them to music makes ready sense to the young child.

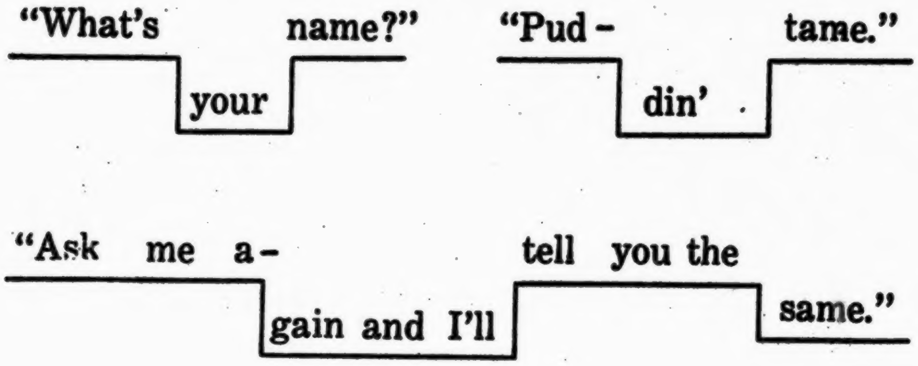
There are several difficulties, however, which numbers present: the difficulty of singing numbers, their inadequacy in chromatic alterations, the fact that numbers present a stretchable ruler which measures the distance from one to three as four semi-tones in the major mode but measures three semi-tones in the minor mode with the same numbers being used. Actually the difference between the use of numbers and the use of sol-fa syllables is superficial. It matters but little whether one calls the first note of the scale one, or do, or ut, as Guido the Monk originally called it, just as long as one always calls the first degree of the scale one, or do, but not two or re, or anything else.

The teachers in this experiment believe the sol-fa system has a great advantage over the number system in that both the diatonic and chromatic notes are easily sung. However, both numbers and the movable do are designed to facilitate the development of tonality; i.e., the sense of tonal relationships within an accepted tonal system. This they do within the key, but when the key changes, the change must be recognized in advance and the names changed accordingly. Both systems, number and syllable, are fundamentally aural systems. Their advantage is that identical melodical configurations are consistently associated with the same set of syllables or numbers; thus, a major tonic triad is always some configuration of do, mi, sol, or 1, 3, 5.

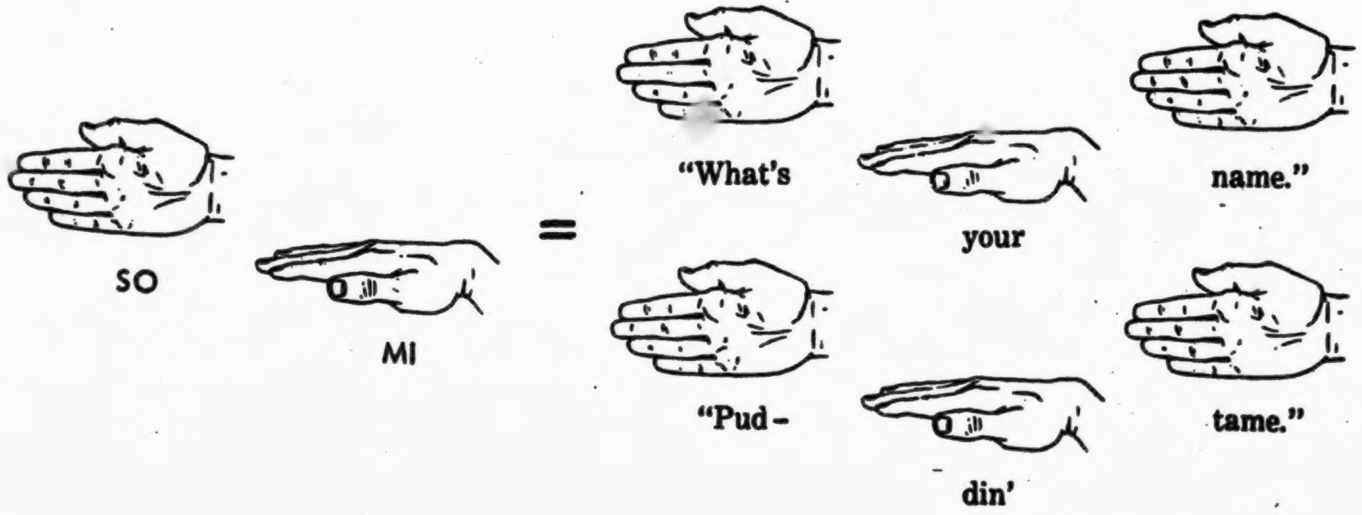
In reviewing recent publications for additional ideas for teaching basic command of the musical language, the following methods were found to be representative.

Sight and Sound by Darazs and Jay (10) uses word syllables, hand signs, and a graphic method to teach pitch and temporal values. It begins with a rote song based on the pitches by so and mi. In order for students to sense visually what they have learned, the song is presented graphically:

WHAT'S YOUR NAME?



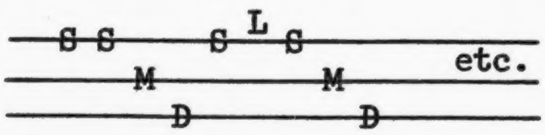
The same song is transferred into hand signs:



The song is then transferred into the actual syllable names, abbreviated S for so and M for mi:

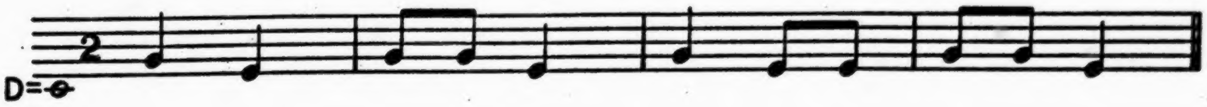
SMS SMS SSSMMMSSSM

After the pitches, do and la, have been added, these syllables are placed on a 3-line staff (as an introduction to the 5-line standard staff):

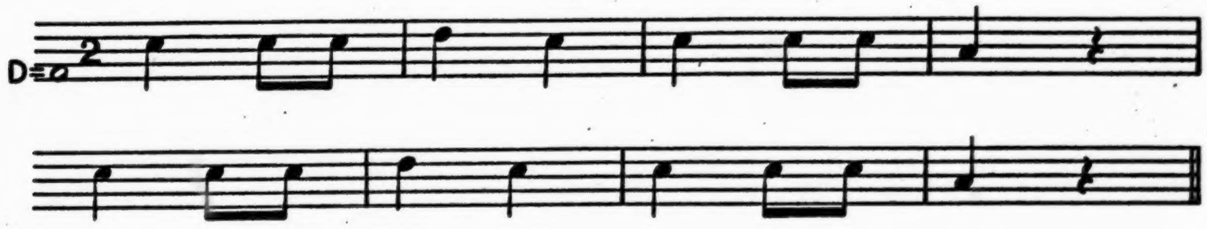


With the addition of *re*, a total of five tones have been introduced which make up the pentatonic scale. This scale is the basic scale used for the entire book but it is transposed through the use of a *movable do* system. That is, *do*, as the tonic of the scale, may occur on *any line* or space that uses the sign, D = O. (The 2 indicates the meter; i.e., two quarter notes per measure.)

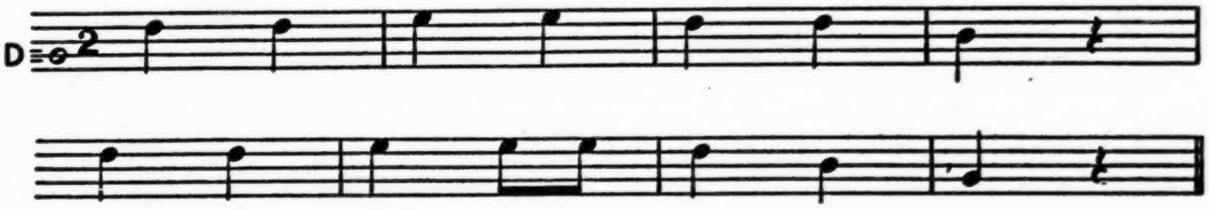
a)



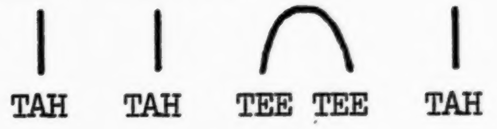
b)



c)

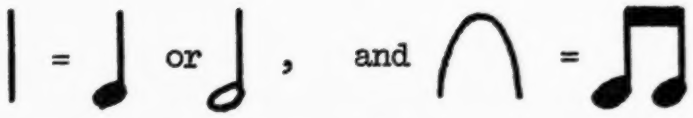


Rhythm is introduced through the use of rhythm syllables based on the French time names invented by Abbé Aimé. Two graphic notations are used to accompany these syllables, probably derived from the poetic stress marks, / and ∩:



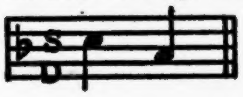
(where TAH = 2 TEE's within the same durational period)

This later transfers directly over to the standard symbols:

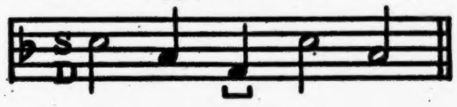


In *Sing a Song to Sight Read*, Rinderer (52) presents a method that has been derived from the Orff musical philosophy which emphasizes rhythm and melody as the basic units of musical understanding. At first, these are studied separately through exercises constructed of melodic and rhythmic motives. These motives are taken from the elementary song literature or are improvisatorially constructed upon a familiar text:

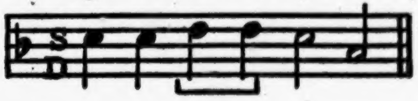
1. The calling third.



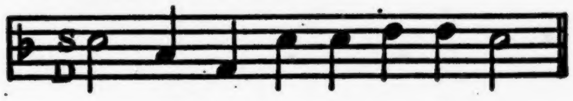
2. DO as approach tone.



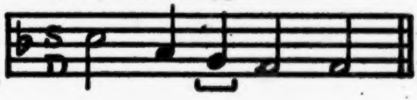
3. Ring-a-round-the-rosy motive.



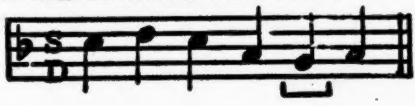
4. Combination of 2 and 3



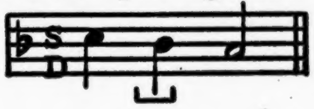
5. RE as passing tone.



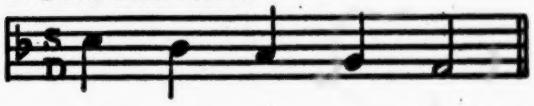
6. RE as mirror tone to LA



7. FA as passing tone.

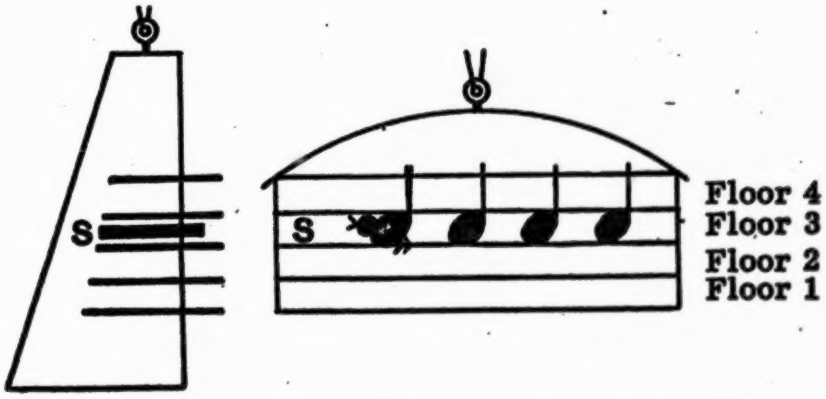


8. Five tone series

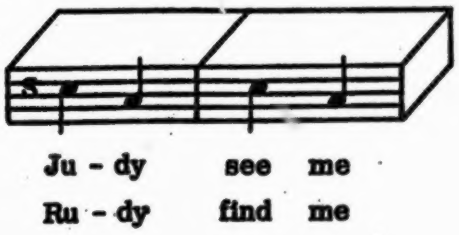


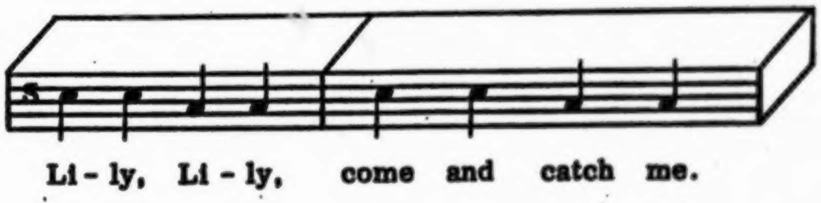
Through the above concepts, the pentatonic, major, and church modes are eventually introduced, beginning with so and mi of the sol-fa syllables. Curwen's hand-sign system is also used to reinforce the syllables. Although a standard key signature is used, the clefs are not introduced until much later. In the following example, the $\frac{\text{S}}{\text{D}}$ figure represents a "movable do" system where do is the tonic of the scale and may occur on any line or space in the staff.

The students are taught note-writing through the use of drawings. A Glockenspiel tower, a bird, and a bird cage represent the pitch sounded, the equivalent written note, and the musical staff, respectively (S = so).



Later, "building blocks" are used as a visual idea of how a song can be put together.

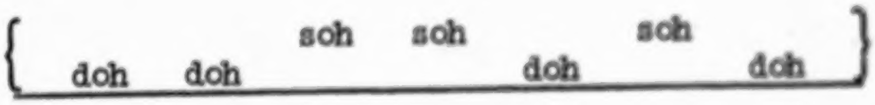




Accidentals are introduced in the traditional manner.

The texts of Hardy (22) and Venables (73) are based on the Curwen System, which uses sol-fa syllables, hand signs, the movable do system, a modulator chart, and a unique rhythmic notation, which also uses syllables.

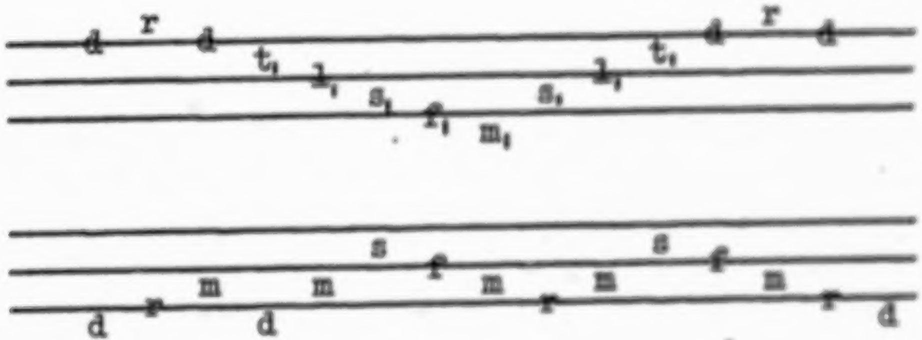
Pitches are learned by singing do and so at first and then correlating these with a visual graph of their relationship. Other tones are then added:



These may also be sung from abbreviated syllables:

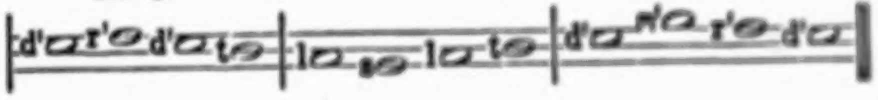
d d s s d s d

Once all of the pitch and syllable names are learned, a 3-line staff is superimposed to illustrate a more exact representation of the pitch relations:

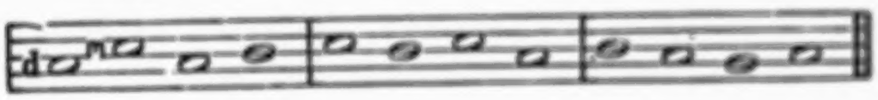

d r d t, l, s, f, m, s, l, t, d r d
d r m d m s f m r m s f m r d

Do, in the example above, is thus a movable do and may appear on any line or space, making that the tonic of the key. This transfers easily into standard note notation and then into the standard 5-line staff.

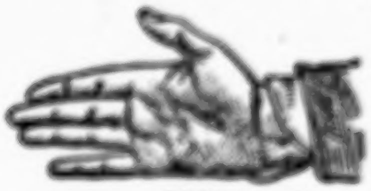
KEY C.

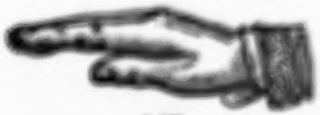


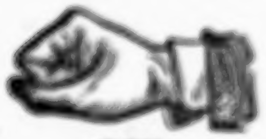
KEY A.

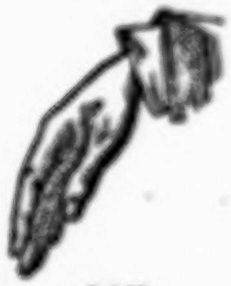


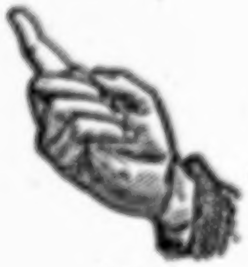
To reinforce pitch learning, the following hand-sign system is used:

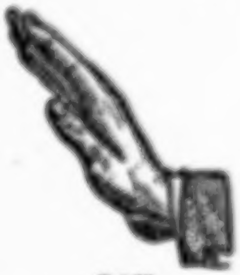

SOH
The Grand or *bright* tone

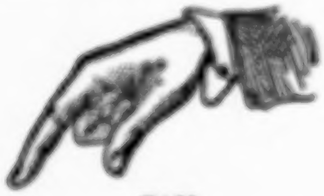

ME
The Steady or *calm* tone


DOH
The Strong or *firm* tone


LAH
The Sad or *weeping* tone


TE
The Piercing or *sensitive* tone


RAY
The Rousing or *hopeful* tone; *sometimes prayerful and reflective*

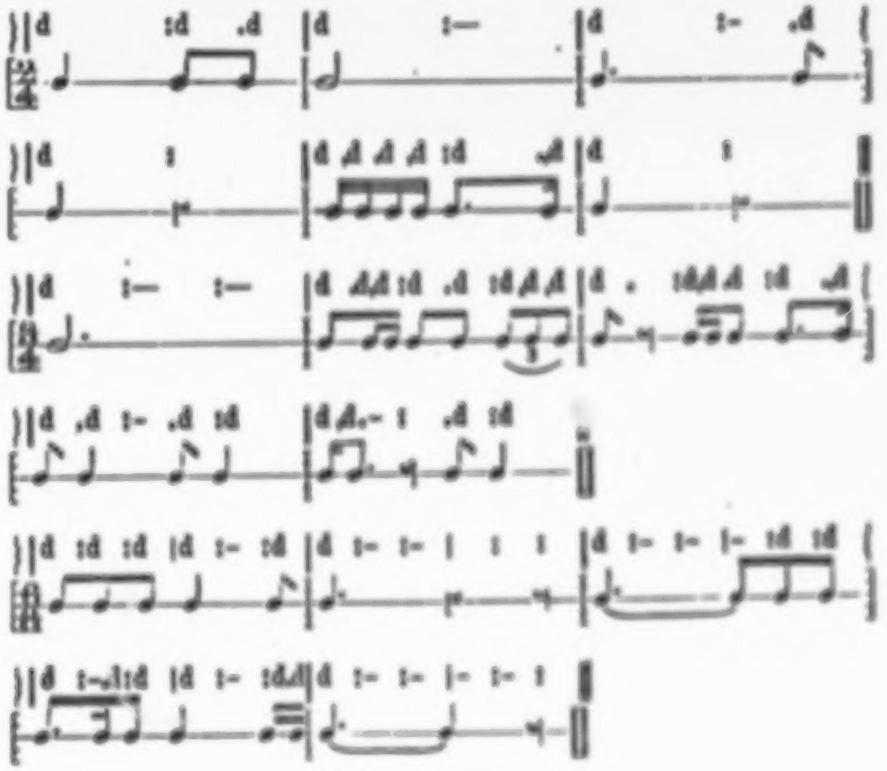

FAH
The Desolate or *awe-inspiring* tone

To introduce modulation, or do transition, as it is called here, a modulator chart is used. For instance, the simplest transition consists of turning so into a new do. By writing the new do on the right-hand side of so and then adding the rest of the notes above and below as shown in the example below, a comparison can be made. In order to find out the equivalent pitch by vertical distance, fa must be lifted or raised a half step to make the new ti. The new note is called fi. Fa is thus given an appropriate accidental on the staff to compensate for the transition. The example below shows a modulator for turning fa into do (ti is lowered to te), and changing so to do (fi becomes ti in the new key). Thus, this modulator becomes a kind of formula for simple transitions.

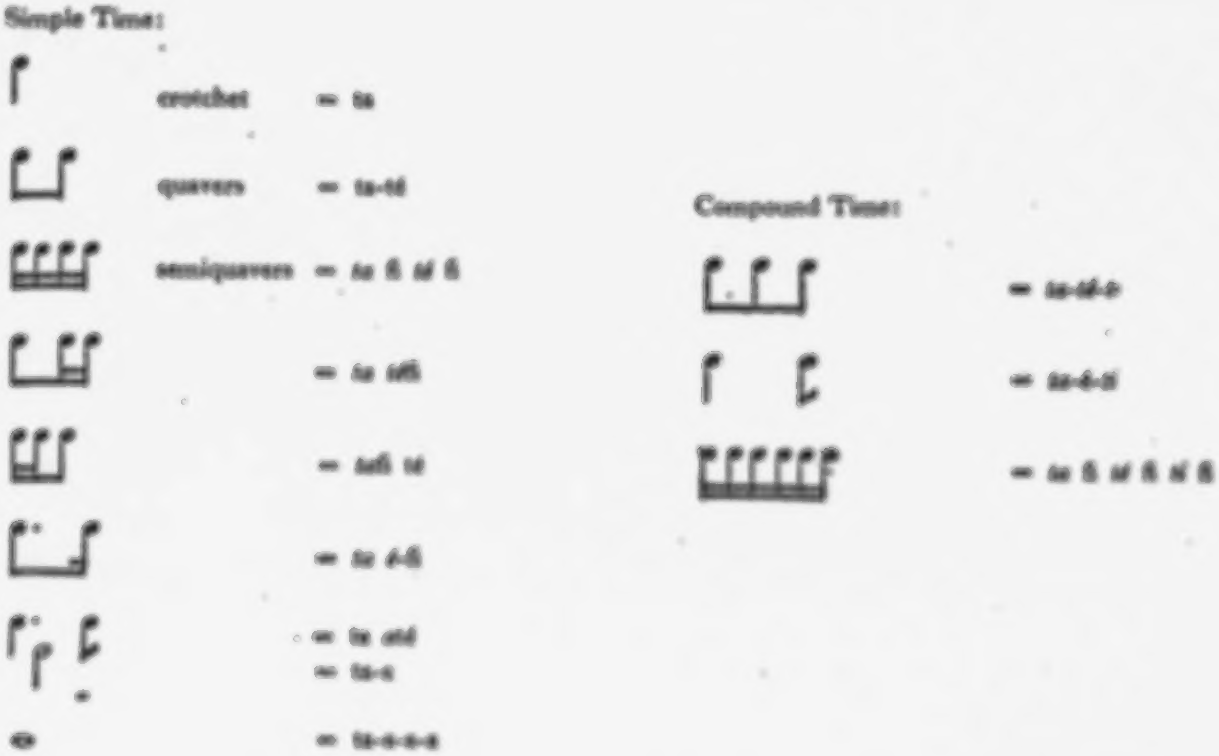
DOH'
TE
ta le
LAH
la se
SOH
fe
FAH
ME
ma re
RAY
ra de
DOH

(Pitches to be raised are indicated on the right, in small letters; pitches to be lowered are indicated on the left, in small letters.)

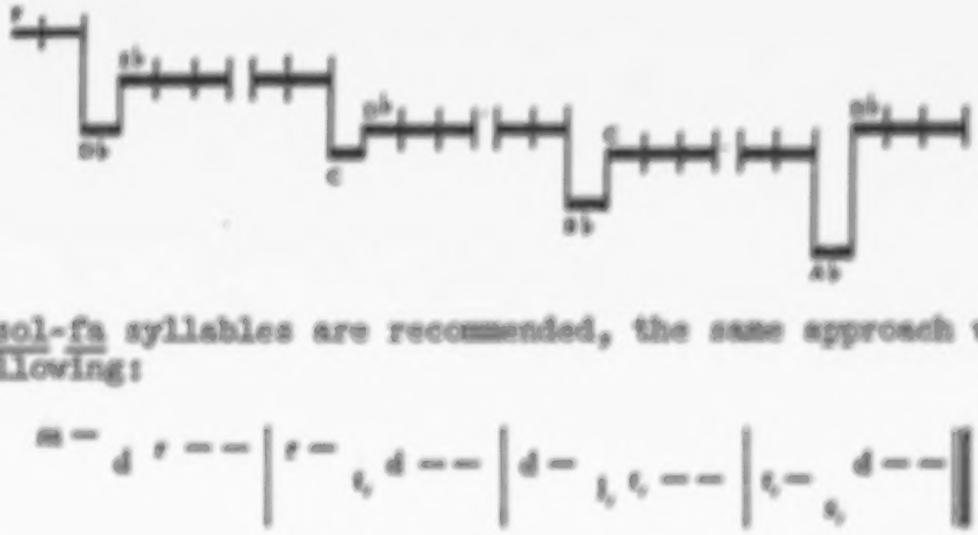
Use is made of Curwen's system of time, which is based upon two-, three-, and four-pulse measures and compound two- and three-pulse measures which refer to the meter involved. Examples of the various note lengths with the staff equivalents are:



To reinforce learning here, word syllables are also used. These are based on the French time names invented by Abbé Aimé.



The text by Cooper and Kuersteiner (8) begins with rote-singing, simple-part songs. By using a "rote-diagram" (graph-type) for each part, a pitch-picture is represented.

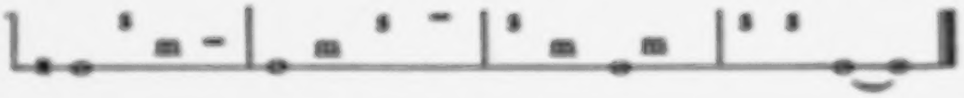


Since sol-fa syllables are recommended, the same approach would employ the following:

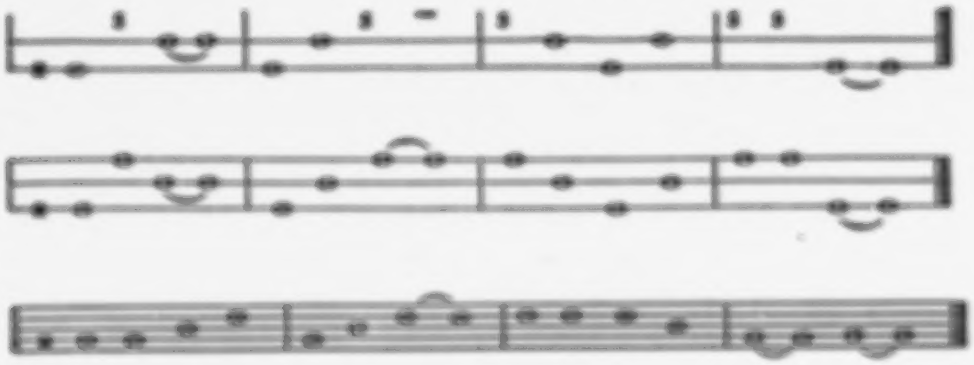
m — d r — — | r — t, d — — | d — l, t, — — | t, — s, d — — ||

Hand signs are recommended also to save the teacher's voice and to impart a strong visual stimulus to the reading of music notation. This transfer eventually encompasses the diatonic major and natural minor scales.

Continuing the sol-fa, a line is drawn connecting all of the do syllables.



The do syllables are replaced with a black square and this sign indicates do from that point on. This process is gradually expanded until all five lines of the standard musical staff have been introduced.



Facility in note-reading is then achieved by reading through transposed major and natural minor exercises (movable do).

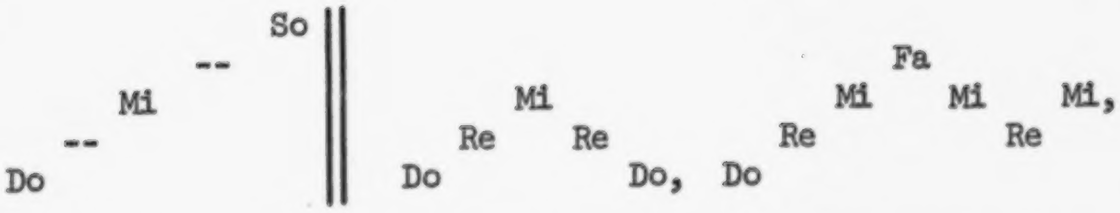
Quarter-, half-, and then whole-note values, with various combinations of ties and dots, are introduced through a clapping method:

> Each quarter-note value receives one hand clap; a half note (two quarters tied together) receives a hand clap and a hand shake or grip; a whole note becomes clap-shake-shake-shake.

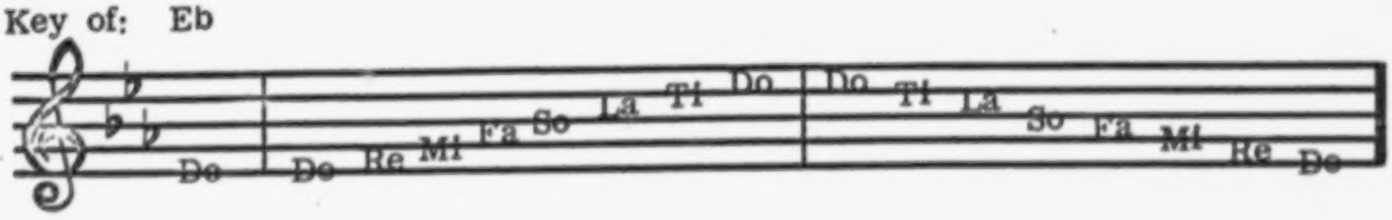
Nelson's (41) method concentrates entirely upon pitch-learning through sol-fa syllables, leaving the problem of rhythm to be taken up at a later date. Only the major scale is used here and is learned by rote from the very beginning. It is presented in a graphic way:

Do, Do
Ti Ti
La La
So So
Fa Fa
Mi Mi
Re Re
Do Do

Each exercise is a drill in a different technique. For instance, the following example develops skill in stepwise syllables moving between the tonic triad:



The syllables are then presented on the standard musical staff.



Next, the syllables are replaced by quarter-note values, and the drill process is continued in various keys.

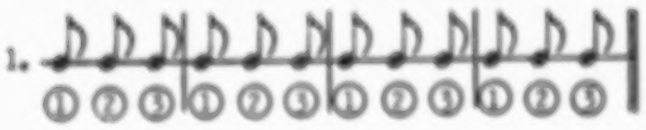
Steiner (59) presents a very useful approach. It is based on listening--that is, silent recognition of melodic dictation--clapping, singing, and writing what has been dictated.

The sol-fa syllables are used in singing and in writing. For instance, the following would be listened to, clapped, then written and clapped:

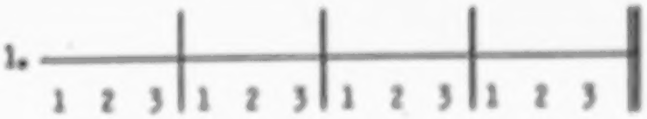
3 beats per measure

♪ = 1 beat

Listen - Clap (M.M. ♪ = 72 - 144)

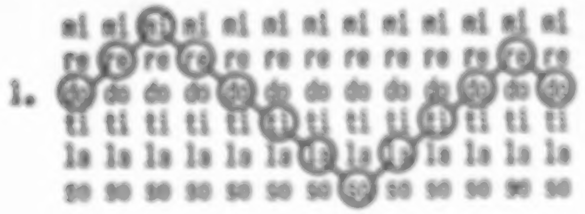


Write - Clap



The following would be listened to, sung, then written and sung:

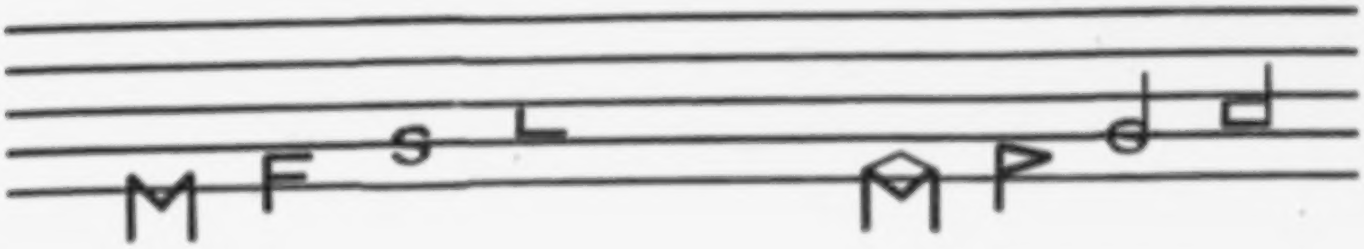
Listen - Sing



Write - Sing

These texts, mostly with publication dates in the 1960's, are interesting to the music historian, for the first music textbook published in America, in 1721, by John Tufts (72) employed a technique very similar to these. Tufts was content to use but four syllables, fa-so-la-mi, which by repetition can form the octave, and, since it contains the mi-fa half step relationship, could be ordered in major scale form. He, too, used letter names to represent the syllables but with an interesting deviation to allow for time values to be incorporated into the notation in the form of punctuation marks.

Among the ingenious notations which followed in the wake of the Tufts publication, none was more remarkable than the shaped-note system which made its first appearance in the pages of the tune-book, The Easy Instructor, by William Little and William Smith. It consisted of a differently shaped note-head to represent each of the four syllables of the scale. These distinct shapes, drawn from the initial letter of the sol-fa syllables, were used to represent the syllables on the staff.



The shaped-note idea was the kind of inspired solution to the problem which seems perfectly obvious once it has been suggested. Thus, a triangular-shaped note represented do, a round-shaped note, sol, a square-shaped note, la, and a diamond-shaped note, mi. In all other respects, the notation was orthodox.

This system has many advantages over the use of letters and was incorporated into this research with some modification, since seven distinct shapes were used rather than four.

An article by Lowens and Britton (30), published in the Journal of Research in Music Education, contains this critique of the shaped-note system:

> The clear advantages of the shape-note system are almost immediately apparent. An individual shape for each syllable of the scale enables one, after a modicum of attention to the matter, to name the proper syllable of any piece in any key almost immediately. One of the genuine difficulties in ordinary syllabization lies in the fact that keys change, hence do does not remain in the same place on the staff. The student must be continually making mental

> computations in order to syllabize. With shape notes, this is completely avoided, thus one true function of any syllabization system, that of aiding in the automatic identification of scale degrees, is emphasized and capitalized upon through shape notes. These shape notes utilize the standard notation and add it to a graphic, quickly comprehended key to relative scale degrees. No one who has witnessed the astonishing sight-singing virtuosity exhibited by the shape note singers of the rural South today, trained in what is basically the easy instructor method can possibly doubt the effectiveness of the device. Had this pedagogic tool been accepted by the father of singing in the schools, Lowell Mason, and others who shaped the pattern of music education, we might have been more successful in developing skilled music readers and enthusiastic amateur choral singers in the public school. Shape notes were never admitted to the classroom, and as a result the child who learns to read music in our schools today must do so without the aid they might give.

This hypothesis of Lowens and Britton is an interesting one, but receives no universal acclaim from teachers in the field who are imbued with Thorndike's fear of the use of crutches of any type. They question the value of symbolizing syllables with various shaped note-heads, because music is not written in this notation normally. They believe that since mature musicians read in the normal notation exclusively, the shaped notes are a visual crutch that would have to be discarded with musical maturity. Never teach a child anything, they observe, that he will have to unlearn as an adult. Practice makes perfect only if we practice perfectly.

A particular theory of learning which supports this protest is clearly revealed in the arguments cited against the use of crutches in general. According to this theory, learning should proceed smoothly and uninterruptedly from initial status to desired outcome. The adult or the accomplished musician does not use a shaped-note system to determine the pitch relationships. On the contrary, he analyzes the music, determines the key, and ascertains which degree of the staff corresponds to the same degree of the key--all done through logical analysis in his head. The shaped notes would deny the necessity of these mental calculations, and would not give practice in the technique which ultimately he must employ. The child should not be given a crutch, but should do exactly as the adult does to the best of his ability, so this theory contends.

The other side of the argument championed by Brownell (5) and others holds that learning need not take its pattern from adult behavior if an alternate pattern gives meaning to the situation and contributes to understanding. The fear that a crutch once learned might become a permanent habit is minimized if *understanding* gained by the use of such a crutch is made possible, and if the greatest "transfer" to the understanding of musical notation is accomplished. (Note in the examples how shaped notes make insights into harmony possible.)

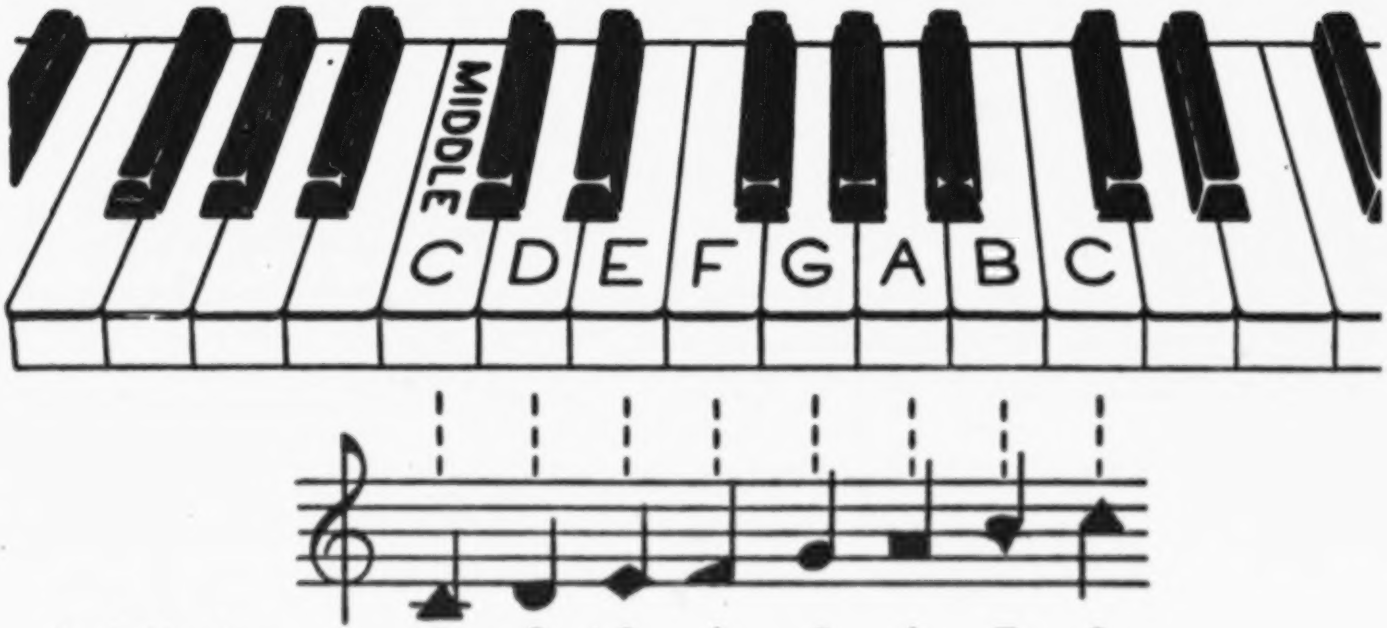
This author determined to test Britton's hypothesis and devise an experimental method which would teach children to read music. The experiment was recorded in the *Journal of Research in Music Education* (28). The results of the experiment suggest that this historical tool may serve as a means of quickly equipping musically illiterate seventh graders with basic tools for reading and writing music. The essence of the experiment was the use of seven distinct characters, or shaped notes, which designate the seven *sol-fa* syllables. These note-heads provided an accurate naming of the syllables that are coincidental with the interval relationships presented in the several songs taught by the note-rote method--actually familiar songs, in which the melody was known so that the accuracy in melody was guaranteed. This accuracy of pitch- and syllable-naming, due to the help of the shapes, permitted the development of the *sol-fa* vocabulary, the conditioned response, to be more quickly acquired. This, in turn, permitted an overlearning of the *sol-fa* association with the scale interval--the vocabulary upon which reading is predicated.

The problem of determining from normal notation which line is *do* is still another problem and is required of anyone who is to read music from normal notation. This latter skill was developed by having the students transfer into shaped notes the normally printed music in their texts. As the students slowly, carefully, methodically, and *accurately* decided that *do* is on a line, that *mi* and *so* are on the lines above, or as they noticed that *la* would be on the space above the *so* line, they learned the relationship of the notes to the tonic tone. When this ability has been demonstrated, the students are ready to *discard* the shaped notes and read and write music as normally printed.

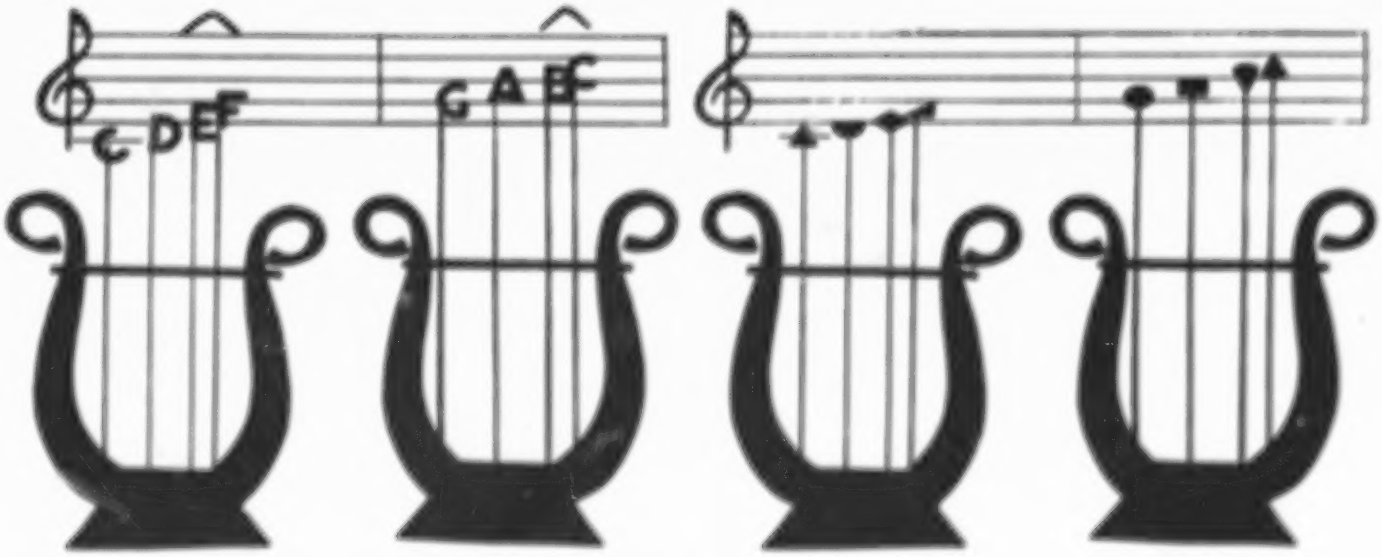
Mentally hearing *sol-fa* syllables to each tone as it is written on the staff--melodically and harmonically--makes a great contribution to the art of hearing with the eye, the music one chooses to analyze as models for compositional purposes. Moreover, this method assures both the teacher and the pupil that the student is truly writing the musical idea he holds as an auditory image.

An extension of this pilot experiment was utilized in this research. The materials used comprise Appendix B. A film, "Teaching Children to Read Music with Shaped Notes," is available as documentary evidence of the efficacy of the method.

THE KEY OF C

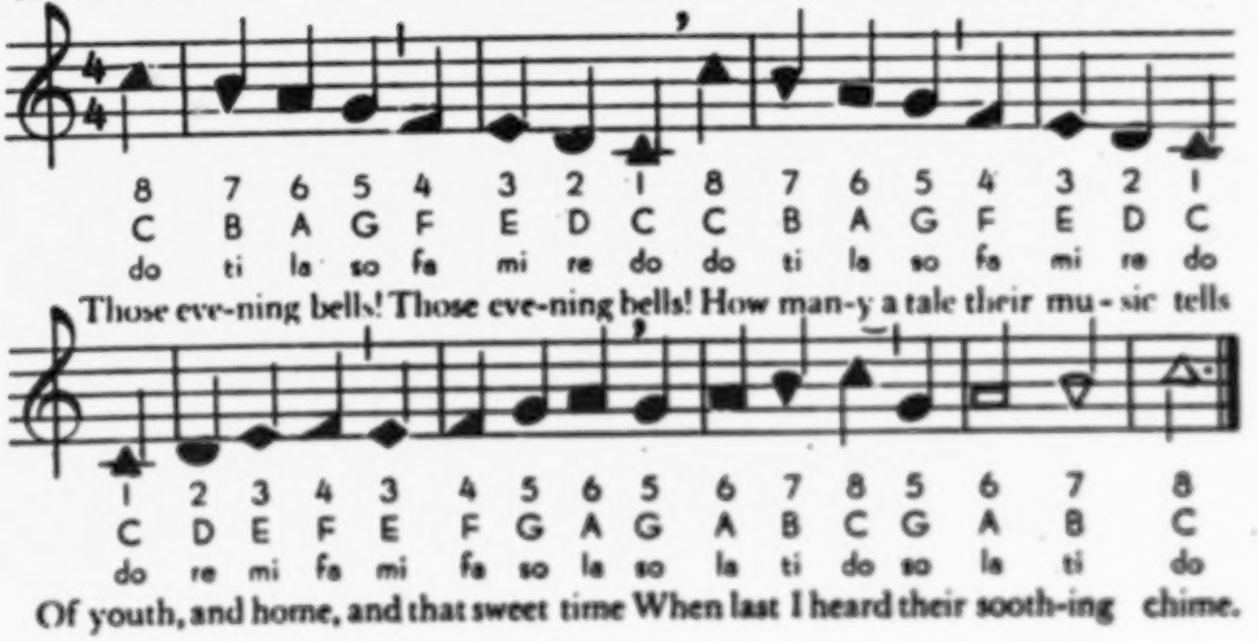


Scale Numbers:	1	2	3	4	5	6	7	8
Pitch Names:	C	D	E	F	G	A	B	C
Syllables:	do	re	mi	fa	so	la	ti	do

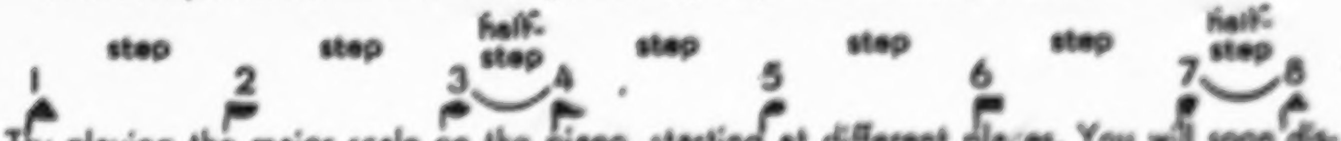


Those Evening Bells

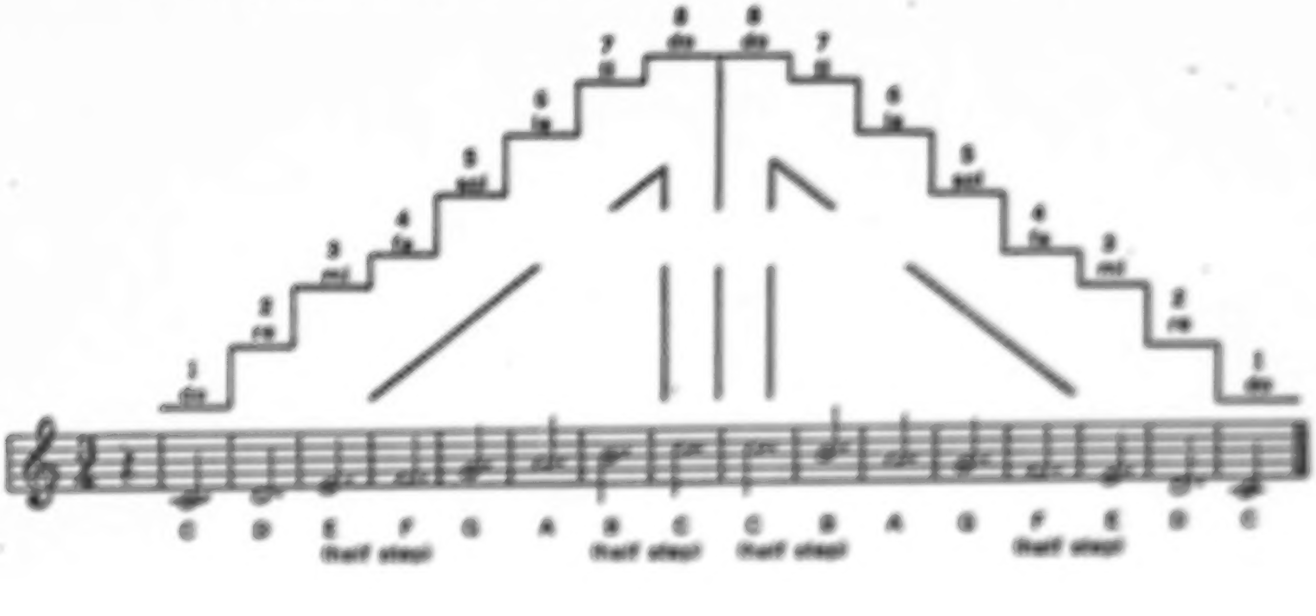
THOMAS MOORE
OLD NURSERY TUNE


8 7 6 5 4 3 2 1 8 7 6 5 4 3 2 1
C B A G F E D C C B A G F E D C
do ti la so fa mi re do do ti la so fa mi re do
Those eve-ning bells! Those eve-ning bells! How man-y a tale their mu - sic tells
1 2 3 4 3 4 5 6 5 6 7 8 5 6 7 8
C D E F E F G A G A B C G A B C
do re mi fa mi fa so la so la ti do so la ti do
Of youth, and home, and that sweet time When last I heard their sooth-ing chime.

A scale is a series of tones from any given tone to the next higher or lower tone having the same name, that is, from C to C, or from G to G, from E-flat to E-flat, and so forth. In the major scale, this series is organized by steps and half-steps, as follows:



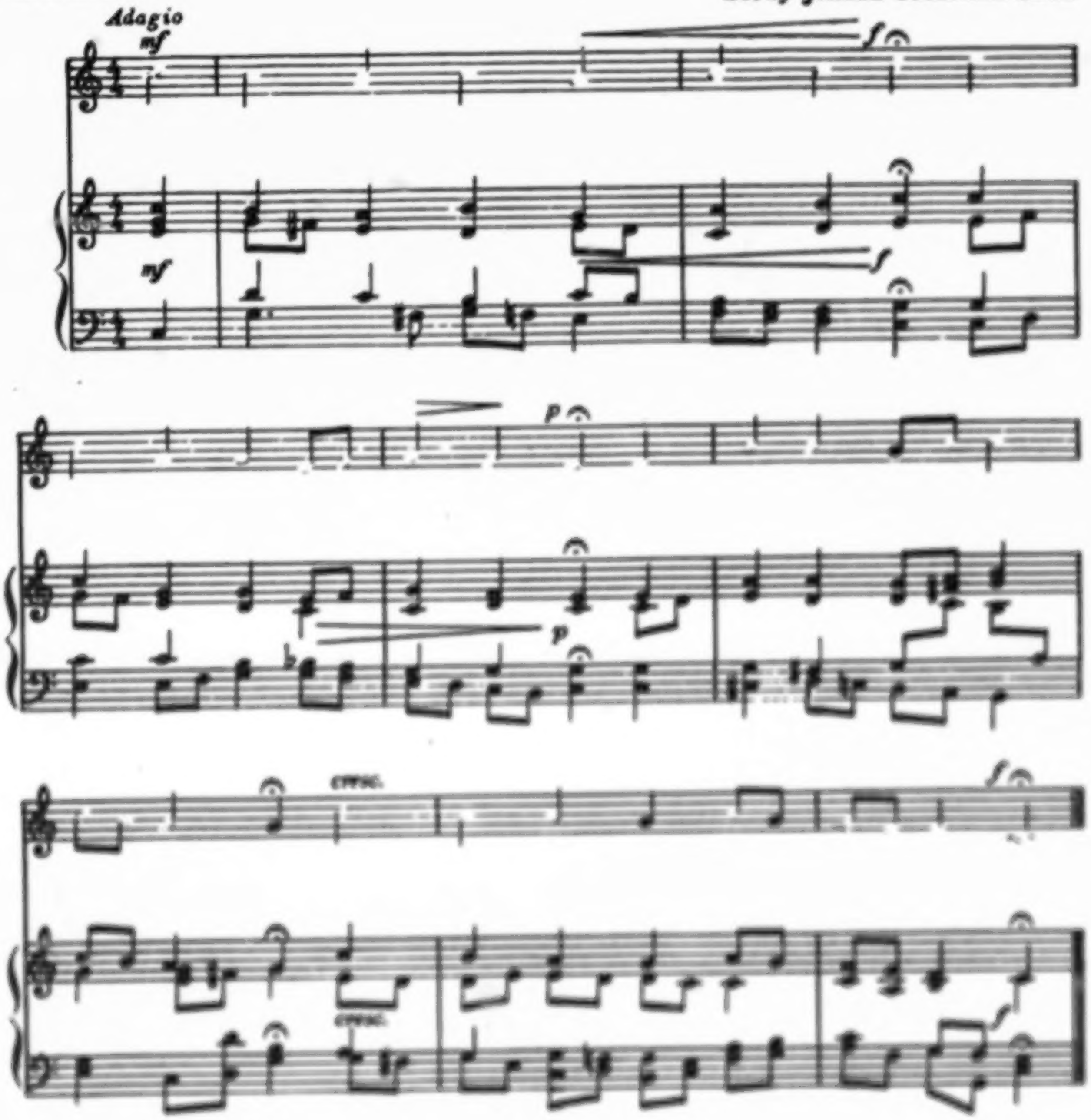
Try playing the major scale on the piano, starting at different places. You will soon discover that different combinations of white and black keys must be played to make the scale sound right according to the above plan of steps and half-steps.



From Heaven Above (Christmas Chorale)

Martin Luther

Melody by Martin Luther (?)
Set by Johann Sebastian Bach

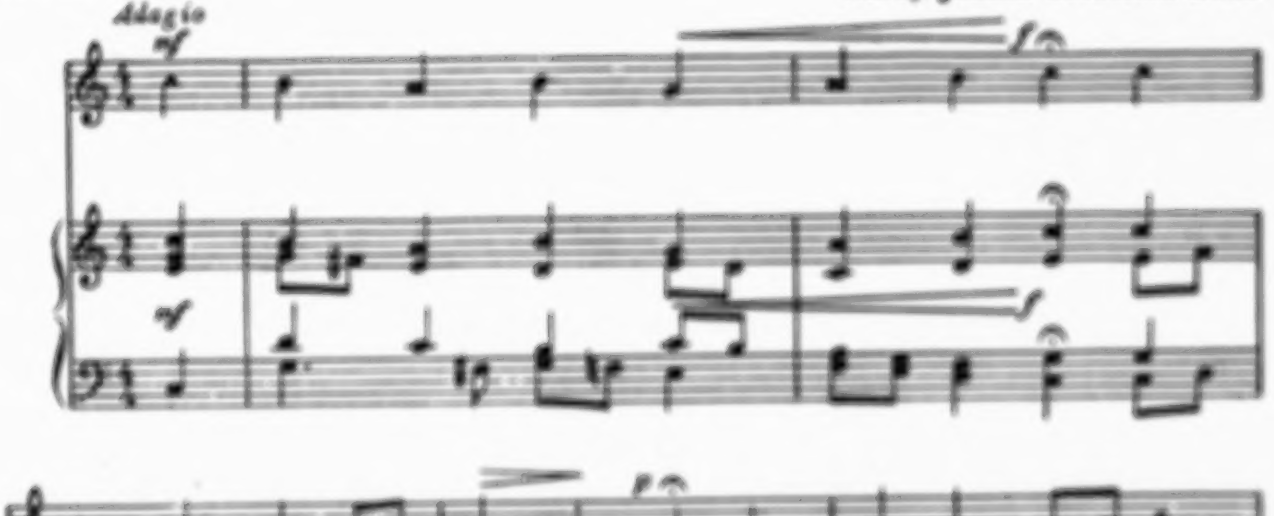


Students change normally written music into shaped notes. As they carefully choose the right shape for the right syllable for each degree of the staff, they are learning which note is to be called by which syllable. This practice is done in several keys as well as in the bass clef. The purpose, of course, is eventually to make the shapes unnecessary.

From Heaven Above (Christmas Chorale)

Martin Luther

Melody by Martin Luther (?)
Set by Johann Sebastian Bach



The Composition Curriculum

The unique purpose of this research was to test the value of a curriculum based upon musical composition. The course of study took for its model the educational philosophy and practices of Carl Orff and Zoltan Kodaly. It must be acknowledged, however, that while it was primarily the philosophy of these two European composer-educators that gave direction to this endeavor, the researchers soon discovered that the materials developed by them were indeed intended for a population much different from that of urban, "culturally deprived" seventh graders.

The Orff theory that children can be taught music by following almost the same pattern of development as that of the human race as it progressed through music history was a challenging attitude and gave direction to the experimental curriculum. Furthermore, the course of study followed Orff's strong belief that the foundation of musical development is rhythm, which is followed in turn by melody development incidentally growing out of speech, and finally branching outward into polyphonic and harmonic textures. The compositional experiences began with the pentatonic scale encouraged by both Kodaly and Orff. Melodies began with the most primitive of children's chants based upon the "falling minor third," the universal interval of childhood.

The teachers were influenced strongly by the thinking of Kodaly that music education should not depend strongly upon instruments in developing musicality but should rely upon that most natural of instruments--the human voice. Because the objectives of the experiment were not expressed in terms of developing composers of music but rather of developing the ability to comprehend musical ideas, the participating teachers determined that their efforts should include more than the pentatonic mode and the accompanying devices of instrumental and rhythmic ostinati and borduns which lend themselves so beautifully to the Orff techniques. While they were pleased to start with primitive music in pentatonic, they moved quickly to major and minor modes because the vast majority of the music which children should know falls into those categories. In a sense, they traced the history of music. From the primitive chants of the Indian and Negro, they followed the footsteps of the Christians, composing "Gregorian" chants, and then imitated the polyphonic music that characterized the Renaissance and Baroque periods. The students next were guided in the writing of music in the classical style of Haydn minuets and ended with attempts at writing folk opera, somewhat in the style of the Romantic period. The sequence of lessons is exemplified in Appendix A. It will suffice at this point to outline the experimental curriculum.

The first two weeks of the compositional classes were spent in exploring the improvisational techniques of Carl Orff. Beginning with rhythmic improvisation, echo clapping, and speech patterns, and moving on to creating rhythmic and melodic canons and rondos, students were given considerable practice in creating melodies limited to the pentatonic scale. These melodies were accompanied with improvised rhythmic and melodic ostinati and the bagpipe-like drones or borduns so popular with Orff. Primitive songs and chants were composed, simulating primitive music or what students thought would be in the style of primitive people. Thus, they created Indian stomp dances, a Negro spiritual, and pseudo-Chinese melodies.

The second level of composition began with the writing of Gregorian chants. In so doing, the students developed a feeling for a cadence, they understood the significance of major and minor modes, and they experimented with the earliest form of harmony--the parallelism of organum. The students learned the purpose of clef signs and key signatures, and with the use of a four-line staff began to understand the use of normal notation.

The next step in composition dealt with polyphonic writing. Beginning with a single chord, canon writing was experienced. Students devised descants and chants to fit pentatonic and major and minor tunes. From experiences in polyphonic writing harmony grew. At this point, the students were given training in the use of the primary chords in major and minor modes. They learned to harmonize simple folk songs and to develop second parts from the harmony. Many classes wrote preludes over a figured bass borrowed from a Bach prelude. Other classes created one or another of the classical dances, again over a prescribed harmony. Minor mode was introduced, in turn, and the students were given practice in harmonizing tunes in the minor, changing major tunes to minor, both relative and parallel, and in using minor imitation to develop a tune which was primarily in the major mode. Among the classical dances which the students wrote, the minuet was popular. Again the students used the harmonic and rhythmic structure of a Haydn or Mozart example. In so doing, they learned the use of the II_7 chord, or modulatory chord, which permitted them to modulate into a nearly related key, a technique typical of those classical compositions.

The next step in composition was the putting of words to music, the writing of an art song. This in turn led to the writing of a "folk opera." Some chose the words to Otto Meisner's "Little Red Riding Hood," others composed the music to an original libretto entitled "Columbus."

Description of the Listening Curriculum

The listening program is one customary approach to developing musicality in the junior high school student. Junior high school teachers are in agreement concerning its value, but, as many educators have noted, it is an area which has had little observable effect on the musicality of students, particularly those classed as culturally deprived.

For the listening curriculum, this research was particularly fortunate to have available 14 films and 21 taped recordings of the Young People's Concerts by Leonard Bernstein and the New York Philharmonic Orchestra. Mr. Bernstein is extremely gifted in his ability to communicate to his audience both through the spoken word and through his own performances of master works with the New York Philharmonic Orchestra. He has a genius for inserting precisely the right colloquialism to clarify a complicated concept. He does not hesitate to employ the experiences of modern youngsters to illustrate his analogies. His contagious enthusiasm makes his lessons a vital experience, inspiring his television audience to listen and to gain some grasp of the principles which form music of all types.

Here are short descriptions of the fourteen Bernstein films that were used. They were borrowed from the Ford film library, the Bell Telephone film library, and the McGraw-Hill film library. Each has a running time of approximately one hour and can be purchased from McGraw Hill for $275 per film.

Film No. 1: What Does Music Mean?

A piece of music, says Mr. Bernstein, should never be tied inextricably to a specific story or meaning. Music should stand on its own sound. Music may express a mood or emotion but the listener should never search for extra musical meanings; rather, he should learn to understand the music itself. In this film the music ranged from Moussorgsky's Pictures at an Exhibition to excerpts from Tschaikovsky's Fifth and Sixth Symphonies, and the first movement from Beethoven's Sixth Symphony.

Film No. 2: What Is a Melody?

Melody is the real meat and potatoes of music--the main course. Thus students are taught to recognize that melody can be a tune, a theme, a motive, a long melodic line, a bass line, or a counterpoint of many tunes. Where there's music there has to be a melody. It's simply a matter of understanding. Musical examples for this film were drawn from Beethoven's Fifth Symphony, Wagner's Prelude to Tristan und Isolde, and Brahms's Fourth Symphony, the last movement of which summarizes the discussion.

Film No. 3: What Makes Music Symphonic?

To be symphonic, music must change, develop and grow. These changes are represented by variation, as illustrated in the Third Symphony of Beethoven, the Eroica, through the use of sequential development as illustrated in Tchaikovsky's Romeo and Juliet by imitating development, augmentation, diminution, dynamics, and mode changes. In the film the last movement of Brahms's Second Symphony is used to exemplify symphonic development.

Film No. 4: What Is a Concerto?

The concerto in its early form was based on the principle of imitation between solo, or group of soloists, and accompanying body. From its baroque Italian origin, the development of the concerto was modified to the form of the virtuoso concerto resembling the symphony--a trend which encouraged virtuosity by the solo performer. As examples of the Concerto Grosso, Vivaldi's Concerto in C Major and the last movement of

Bach's Fifth Brandenburg Concerto were played. The Mendelssohn Violin Concerto illustrates the solo performance concerto. The Bartok Concerto for Orchestra exemplifies further evolution that modern composers are using.

Film No. 5: What Does Orchestration Mean?

Good orchestration means choosing the right instruments at the right time in the right combination. Wrong instrumentation is demonstrated by the use of Afternoon of a Faun and Rhapsody in Blue to show how inept the wrong choice of instruments can sound. Excerpts from compositions by Schubert, Hindemith, Schumann, Mozart, Prokofiev, Stravinsky, and Ralph Vaughan Williams illustrate methods of orchestration using instruments in the same family as well as the mixing of families to achieve particular effects.

Film No. 6: What Does Classical Music Mean?

By illustrating the interpretive possibilities of "I Can't Give You Anything but Love, Baby," Bernstein implants the concept of classical as exact music in his listeners' minds. Bach and Handel typify the spirit of the classical period and this is demonstrated in the film by analyzing the precise construction of the opening fugue of Bach's Fourth Brandenburg Concerto. The film closes with a performance of the Egmont Overture as an illustration of Beethoven as a classicist who served as a bridge between the Classic and Romantic periods in music.

Film No. 7: What Is American Music?

Special sounds and rhythms of music we recognize as truly American are demonstrated by a familiar theme from Gershwin's An American in Paris. American music is traced from those periods in which our composers progressed from essentially European influences into musical styles that are uniquely our own. To exemplify these elements of American music: syncopation, youth and vitality, pioneer energy, loneliness of the prairie, sentimentality derived from hymns and ballads, the film plays the last movement of Copland's Third Symphony.

Film No. 8: What Is Impressionism?

Just as the impressionist painters rejected the old "photographic" school of art to evolve daring new ways to depict their subjects, so the impressionist composers, led by Debussy and Ravel, cast aside nineteenth-century form and harmony and invented a thrilling new style of tone painting. This comparison was strikingly made by showing Monet's "Rouen Cathedral" and a photographic likeness. The music of Debussy and Ravel created subtle yet powerful musical impressions characterized by the use of pentatonic melodies, whole tones, new chords, bitonality, and exotic rhythms including jazz. The music used here was Ravel's Daphnis et Chloe.

Film No. 9: What Is Sonata Form?

By analyzing the simple tune "Twinkle, Twinkle, Little Star" and Micaela's aria from Carmen, the students are led to recognize the expanded A-B-A form found in a sonata. In this film, Mozart's C Major Piano Sonata was analyzed to show the key relationships of the themes and the use of tonic and dominant keys to achieve balance and contrast. The film ended with the identification of the exposition, development, and recapitulation, using Mozart's Jupiter Symphony.

Film No. 10: Humor in Music

This film shows that music can be funny and that the world's greatest composers have produced a range of humor that encompasses wit, satire, parody, burlesque, caricature, musical jokes, and just downright good humor. The orchestra demonstrates how music can be structured for humorous effects through incongruous sounds, unexpected cadences, surprising twists of a theme, and other devices. Musical humor is traced in many forms from the Classical to the Modern period. Music included Haydn's Symphony in G Major, No. 88, the Scherzo from Brahams's Fourth Symphony, and excerpts from Shostakovich's Fifth Symphony, Prokofiev's Classical Symphony, Mahler's First Symphony, and Richard Strauss's opera, Der Rosenkavalier.

Film No. 11: Folk Music in the Concert Hall

Today, young people of America are rediscovering the special qualities of folk music long used by people of every nation to express feelings about life, death, love, war, and freedom. Consequently, much of each country's great music reflects its folk melodies. A fascinating demonstration was given showing how the voices of the people have influenced nationalistic melodies through varying inflections of the different languages such as Hungarian, Italian, French, Spanish, German, English, and that of the American cowboy. The orchestra plays illustrative selections from Bartok's Music for Strings, and Sinfonia India by Chavez.

Film No. 12: Jazz in the Concert Hall

Three major modern works were used to illustrate the new movement in American music. It has been christened "the third stream" by composer-conductor Gunther Schuller, because it fuses the spontaneous improvisation of jazz with the permanence of "serious" concert music. Music used was Schuller's A Journey into Jazz, Copland's Concerto for Piano and Orchestra, and Larry Austin's Improvisation for Orchestra and Jazz Soloists, which, as the name implies, features the unique demands for improvisation.

Film No. 13: The Sound of an Orchestra

In this film it is observed that a great orchestra is one that can change from one composer's style to another--from Haydn to Beethoven to

Debussy to Mahler. The orchestra's interpretation must express the characteristic musical textures and colors of different composers, national origins, and periods of music history. This film performance by the Philharmonic orchestra offers two interpretations of the Largo from Haydn's *Symphony in G Major*, and illustrates how nationality, era, and the composer's individuality influence interpretation. Music played included Beethoven's *Fifth* and *Seventh Symphonies*, Brahms's *First Symphony*, Debussy's *Iberia Suite*, Stravinsky's *Story of a Soldier*, Gershwin's *An American in Paris*, and Copland's *Rodeo Suite*.

Film No. 14: *Shostakovich's Ninth Symphony: An Analysis*

In analyzing the *Ninth Symphony* this film shows how Shostakovich broke with tradition in writing his unusual Symphony, which may be described as a parody on Beethoven's monumental *Ninth*, inasmuch as he uses harmonic twists and unexpected notes. The orchestra plays three movements of Shostakovich's *Ninth Symphony*.

The Bernstein audio-tapes available for this study included the following:

Modern Music
What Is Jazz?
Beethoven's *Fifth Symphony*
What Are Intervals?
Variety in Music
Romanticism
Unusual Instruments
The Creative Performer
Rhythm
Young People's Guide to the Orchestra
Beethoven's *Ninth Symphony*
Bach's *St. Matthew Passion*
Tribute to Copland
Mahler's Hindemith
The Venice Concert
The West Berlin Concert
The Japan Concert
Christmas Music with Poulenc
Young Soloists Performing *Carnival of the Animals*
Stravinsky's Birthday
Sibelius' 100th Anniversary

The listening program for the first semester was limited to the Bernstein films and tapes. The following two semesters a supplementary music listening program was introduced into three of the schools which had begun a course attempting to gain insights into musical structure through interrelating the allied arts. The courses were commonly called "Music as a Humanity." For the experiment, the lessons dealing with music as it relates to other arts were presented by means of taped lessons, thus standardizing the procedures in the three schools in as far as is feasible in public school music classes. Examples of these lessons are to be found in Appendix C.

Performance Curriculum

Another control for this study was performance, both vocal and instrumental. Both avenues are completely familiar to music educators and consequently need but little mention. The choral program pursued by the experimental population may be unique and worthy of comment, however.

The singing program at the junior high school level in the San Francisco Bay Area is primarily a music reading program. Many of the teachers were content to use folk songs and art songs as material for reading music (see Appendix B for the songs used). In some of the schools where choral music has long been the prime means of music education, the programs from their spring concerts reveal the quality of the literature which was used, at least in the second semester. Following are two representative programs; interestingly enough, one is from a totally Negro school and the other is from a totally integrated school. Little difference will be noted.

School 1: "Adieu Sweet Amaryllis" by Wilbye

"Oh Rejoice You Christians Loudly" from the Christmas Cantata by Bach

"My Heart Is Offered Still to You" by Lassus

"Fa Una Canzoni" by Orazio Vecchi

"We Thank Thee Lord" by Bortiansky

"Little White Hen" arranged by Howarton

"Gloria" from the Twelfth Mass by Mozart

School 2: "In These Delightful Pleasant Groves" by Purcell

"Ave Verum" by Mozart

"O Bone Jesu" by Palestrini

"Like as a Father" by Cherubini

The music chosen for reading purposes by the nine junior high schools served in a way as a supplement to the composition curriculum. Moreover, this music also offered historical examples for the music listening classes. There were several pentatonic melodies included. There were also included plainsongs, early English rounds, two or three madrigals, music by Bach, Haydn, and Mozart, art songs of Brahms and Schubert, even excerpts from early operas. These songs were recorded with piano accompaniment where suited and served as a repertory for singing and a source for analysis for the composition classes. Many of these songs will be found in Appendix B.

Developing the Instrument of Evaluation

In implementing the music program in the schools, the elements of cooperation and good will on the part of the teachers were most imperative. This need was none the less desirable in developing the instrument of evaluation. In order to assure such cooperation, it was apparent that any test of effectiveness of teaching ought to be readily identified as measuring what the teacher was teaching. The teachers involved in this experimentation were in agreement that the central objective of music education is to train discriminating listeners to music. The phrase, aesthetic sensitivity, was used over and over to describe the outcome which they hoped would be the product of their teaching. However, rather than being content with evaluating music education in terms of expressed goals, it seemed prudent also to establish the validity of the instrument of evaluation in terms of actual achievement. It was determined, therefore, that the test should correlate significantly with teachers' estimates of the success of each pupil as directed toward the goal of developing a discriminating enjoyment of music. Although recognizing the vagaries of teachers' ratings in estimating musicality, it seemed wise to set about developing a test which would have as its criterion of validity the concurrence that those students who were recognized by their teachers as being "most musical" would be differentiated by the test from those identified as "least musical."

A primary source for materials for such a test was the music "talent" tests which have been validated on teachers' ratings--particularly those batteries which used aesthetic sensitivity measures to predict success in music. The Wing Test of Musical Intelligence, the Gordon Musical Profile, the Kwalwasser-Dykema Test of Melodic Taste, and the Kyme Test of Aesthetic Judgments in Music were immediately available as preliminary measures. From these tests, items were to be chosen and empirically validated--that is, the items were chosen solely on their ability to discriminate between students rated highest and those rated lowest in musicality by their teachers. The Oregon Test of Music Appreciation by Hevner and Landsbury, though never used as a talent test, did serve as a prime source for aesthetic judgment items. It follows the design anticipated in that the items require the testee to make a judgment of appropriateness of harmony, rhythm, or melody of the original form of a composition by a recognized composer when compared to a second version which had been mutilated in terms of this essence.

Description of the Tests Used as a Preliminary Battery

The Hevner-Landsbury Tests of Musical Appreciation (24) attempts to measure three aspects of music appreciation: music discrimination, musical concepts, and attitude toward music.

The discrimination test was designed to measure judgment of beauty and appropriateness in music. It consists of forty-eight items taken from various compositions and is presented by means of piano performances on recordings. Each item is presented one time in its original version and once in a mutilated version. Mutilations are achieved in a variety of ways, including the extension, reduction, and alteration of rhythm, melody, harmony, and form. The subject is required first to judge which of the two is the superior version and, secondly, to judge whether the mutilation involved the harmony, melody, or rhythm. Hevner used a weighted scoring method inasmuch as no credit is given for the correct identification of the type of mutilation unless the subject has also selected the original version as the better of the two. Correlation with training in music and test scores was .64; correlation with the Seashore battery of tests was .54.

The musical concept test is designed to measure comprehension and understanding of musical composition as a whole. A series of questions and statements, both affective and technical in nature, is given concerning nine classical compositions. True-False answers are scored, based on agreement with expert opinion.

The test of attitude toward music follows the Thurston method of scale construction. Five statements about music are arranged on an eleven-point scale and the subject's score is determined on the basis of the scale values which he has checked.

The Wing Tests of Musical Ability and Appreciation (75). In constructing this test, Wing preferred not to assume that certain given attributes make up musical ability but, rather, preferred to derive items from many tests, particularly those suggested by musicians, and then to delete those which failed to differentiate between persons known to be musical or unmusical. Through statistical analysis, Wing selected the most promising course to follow. The final battery consists of six tests: (1) chord analysis, in which the subject is required to detect the number of notes played in a single chord; (2) pitch change, wherein the subject is to detect a change of notes in a short piece; (3) musical memory, in which the subject is to detect and identify by number the note changed in the second playing of short tunes; (4) rhythm accent, wherein the subject is to judge the better rhythmic accent in two performances of the same piece; (5) harmony, in which the subject is to judge the more appropriate of two harmonizations, using the same melody; (6) phrasing, wherein the subject is to judge the more appropriate phrasing in two performances of the same music. The complete test is recorded and may be used for subjects eight years old through adulthood.

The results of Wing's analysis disclosed two significant factors: (a) judgment of the appropriate musical arrangement, and (b) perceptive change in melody, chord, or number of notes. The first factor is responsible for more of the total variance than all of the other factors combined.

The Kwalwasser-Dykema Tests (26). This test consists of a battery of ten tests given by means of recordings. The tests differ from the

Seashore battery in that they use actual musical material. For this reason, the Kwalwasser-Dykema Tests are more acceptable to musicians. It was chosen for this study because part of the test is concerned with aesthetic sensitivity in music.

The tonal memory test involves 25 pairs of tonal patterns which become increasingly complex. The subject must decide whether the two patterns of each pair are the same or different.

The quality discrimination test involves 30 items in which a melodic fragment is played twice, either by the same instrument or by a different one. The subject must decide whether the tonal quality is the same in each instance.

The intensity discrimination test consists of 30 items; 15 pairs of tones, and 15 pairs of chords. Intensity of sound is the only variable. The subject must judge whether the second is softer or louder than the first.

The tonal movement test presents 30 melodic patterns of four tones each. The patterns are incomplete and require a fifth tone for satisfactory aesthetic completion. The subject must decide whether the fifth tone should be below the fourth tone of the pattern or above it.

In the time discrimination test, three tones are heard, with the first and third of equal duration but with the second tone variable. The subject must decide whether the three tones are of equal or different duration. There are 25 items in this part of the test.

In the rhythmic discrimination test, 25 pairs of rhythmic patterns are offered in which differences of intensity and duration, or both, exist. The subject must decide whether the two patterns are the same or different.

In the pitch discrimination test, fourth tones are heard, each being sustained for three seconds. On some of the tones a fluctuation in pitch takes place. The subject must identify the tones in which the change has taken place.

In the melodic taste test, 10 items are given twice (totaling 20 trials in all). In the first phrase of each pair the melodies are the same, but two second phrases are offered. The subject must decide which of the two second phrases is appropriate on the basis of congruity with the first phrase.

In the pitch imagery test, 25 tonal patterns are given in musical notation. The subject must decide whether the notation is the same as the pattern heard on the recording, or different.

The final test, the rhythmic imagery test, duplicates the technique of the pitch imagery test. Twenty-five rhythmic patterns are presented in notation and the subject must compare them with the pattern sounded on the recording.

The Kyme Test of Aesthetic Judgments in Music (27). Since the Kyme test will constitute a portion of the test used for this investigation, a review of its development may be appropriate.

This test consists of 53 paired performances in which the subject is asked to make judgments about the relative merit of each recorded performance heard. The present test is the piano version of a similar test of aesthetic judgments in music which consisted of the evaluation of paired performances, some taken from commercial recordings and others recorded at the Northern California Music Festivals. The Kyme test was empirically validated by retaining only those items in the test battery which differentiated between persons adjudged to be musical or less musical. As a validating sample, the upper and lower quartiles of 1,425 high school band and orchestra members in the San Francisco Bay Area were employed. The musicality of these students had been rated by their teachers who had observed the subjects in many musical situations for periods of one year or more. Those items which 75 percent of the most musical students agreed upon but which not more than 50 percent of the less musical persons were able similarly to assess were retained for the final test. The reliability of this test of 53 items, determined by the Spearman-Brown formula, was .80.

The *Kyme Test of Aesthetic Judgments* was administered to 412 ninth grade music students. When the test was scored as a test of aesthetic judgment, which required the organization of the elements of auditory imagery--pitch, intensity, timbre, and duration--into meaningful wholes, the mean correlation between test scores and teachers' ratings was computed to be .74. When the test was treated as a simple discrimination test that required the mere detection of differences between two performances which comprised each item, the correlation between test scores and the same teacher's ratings was found to be but .09. These results show that aesthetic judgments may be of great value in the assessment of musical capacity. It also suggests the limitations of tests which merely ask for the subject to make "same" or "different" responses, without requiring the organization of the elements of auditory imagery into meaningful Gestalten.

The *Gordon Musical Aptitude Profile* (16) is classified into three main divisions: tonal imagery, rhythm imagery, and musical sensitivity. Each of these divisions is further subdivided into sections.

In the *tonal imagery (melody) test*, the subject is asked to compare a "musical answer" to a short selection played on a violin. The subject must decide whether the musical answer is a melodic variation of the selection, and thus "like" the selection, or not a melodic variation, and thus "different."

The tonal imagery (harmony) test is much like the tonal imagery (melody) test; however, in the harmony test the violin and cello are utilized as performance media. For each pair of items heard, the subject must decide if the answer is "like" or "different" from the selection, in terms of the variation principle.

In the rhythm imagery (tempo) test, the violin presents paired selections and answers in which both melody and rhythm are represented. The subject must decide whether the ending of the musical answer is "different" (faster or slower) from the selection, or the "same."

In the rhythm imagery (meter) test, the same or new meters are introduced.

In the musical sensitivity (phrasing, balance, and style) tests, the subject must make a judgment concerning one of two renditions of a selection in terms of its "better musical sense." If he has no preference, he may make an "in doubt" response.

The complete battery of seven tests, including practice exercises and directions, is recorded on high fidelity magnetic tape. The tests consist of original short selections which were composed for violin and cello and which are performed by professional artists.

The tests are not concerned with historical or technical facts about music. Students are asked only to compare a selection with a musical answer and to decide if the selection and answer are similar or different, exactly the same or different, or to decide which of two renditions is indicative of a more musical performance. The student has an answer sheet on which to indicate his choice. If the student is not sure of the answer to a given exercise, he is instructed to mark in the third column to indicate that he is in doubt. In this way, the student is not forced to make judgments on all questions. He may answer only those questions which he considers himself capable of answering.

Eleven scores are derived from the test battery: one score for each of the seven subtests, a total score for each of the three main divisions, and a composite score for the complete battery. Electronic test scoring service is available for the battery.

The national standardization involved a representative sample of public school students selected on the basis of procedures developed for the Project Talent study. Separate norms are provided for each grade from four through twelve. Norms for students participating in school music performance organizations are provided for three levels: elementary, junior high, and senior high schools.

The reliability coefficients of the tests are about as high as those generally reported for academic aptitude tests and diagnostic achievement tests. Reliabilities differ somewhat from grade to grade and from test to test, but they are generally in the .70's and .80's for individual subtests, in the .80's and .90's for total tests, and approximately .94 for the complete test.

In describing the third test, Musical Sensitivity, which contains measures of musical preference, Gordon states that this division contributes a more comprehensive appraisal of basic musical aptitude, since musical creativity and expression are at least as important to success in music education as the ability to perceive tonal and rhythmic relationships among notes in a musical phrase.

A pilot study was made with 204 ninth grade students on the premise that teachers' ratings, which will be used as the external criterion of validity, would be more reliable if these ratings were based upon a long acquaintanceship with the students in several musical situations. As might be expected, there was a rather low correlation between teachers' ratings and test scores because the ninth grade students in music represent a stratified sample that is limited to those who elect to take music as a subject. Naturally, this lack of normal distribution of test scores had a negative effect on correlations. Table 1 shows the correlation between teachers' ratings and the various test scores.

TABLE 1

Correlation between Teachers' Ratings and Test Data

Data Sources	.r
Kwalwasser-Dykema	.006
Wing Test IV--Harmony	.097
Wing Test V--Phrasing	.034
Kyme Contemporary Music (piano items)	.203
Kyme Phrasing (instrumental ensembles)	.115
Gordon Melody	.128
Gordon Rhythm	.051
Gordon Musical Sensitivity	.194
Total Gordon Music Profile	.164
Hevner Melodic Items	.222
Hevner Rhythm Items	.180
Hevner Harmony Items	.024
Hevner Form Items	.141
Total Hevner-Landsbury Test of Music Appreciation	.233
Age	.390
Sex	.170
Years of Private Instruction	.327
Student Teacher Ranking of Subjects	.640

The second step in developing the instrument of evaluation was to select from the initial battery the most efficient test items for preliminary trial on a seventh grade population, which provided use of a heterogeneous group and one similar to the experimental population for which the test was being developed. In this testing, 845 students were used. Twenty items from the Kyme test, thirty from the Hevner-Landsbury test, and fifteen from the Gordon Musical Profile survived this screening. Table 2 reveals an analysis of the items used in the preliminary test of aesthetic judgments. The item difficulty is represented by the

TABLE 2

Item Analysis of 65 Items of a Test of Aesthetic Judgments
(sample size: N = 845)

	Item No.	Proportion of Correct Response	S.D. of Item	Point Biserial Correlation Total Score	Correlation Criterion Score--Teachers' Ratings
Hevner Items: 1-30	1	.918	.27	.300	.230
	2	.714	.45	.295	.235
	3	.486	.50	.292	.125
	4	.772	.42	.359	.204
	5	.338	.47	.172	.063
	6	.301	.45	.225	.005
	7	.491	.50	.244	.089
	8	.613	.48	.351	.208
	9	.373	.48	.261	.116
	10	.445	.49	.100	.006
	11	.542	.49	.262	.118
	12	.458	.49	.379	.191
	13	.432	.49	.168	.064
	14	.795	.40	.335	.176
	15	.280	.44	.286	.142
	16	.568	.49	.426	.179
	17	.547	.49	.348	.139
	18	.555	.49	.437	.234
	19	.578	.49	.322	.191
	20	.676	.46	.397	.206
	21	.607	.48	.419	.223
	22	.672	.46	.311	.138
	23	.605	.48	.362	.262
	24	.412	.49	.211	.042
	25	.200	.40	.209	.146
	26	.450	.49	.275	.091
	27	.728	.44	.428	.282
	28	.370	.48	.273	.064
	29	.225	.41	.102	.011
	30	.633	.48	.426	.266

Table 2 (continued)

	Item No.	Proportion of Correct Response	S.D. of Item	Point Biserial Correlation Total Score	Correlation Criterion Score--Teachers' Ratings
Kyme Items: 31-50	31	.606	.48	.440	.284
	32	.576	.49	.388	.196
	33	.579	.49	.270	.148
	34	.557	.49	.395	.271
	35	.568	.49	.347	.178
	36	.437	.49	.220	.130
	37	.307	.46	.158	.066
	38	.538	.49	.285	.123
	39	.348	.47	.373	.167
	40	.354	.47	.291	.121
	41	.478	.50	.265	.098
	42	.505	.50	.207	.077
	43	.323	.46	.391	.172
	44	.547	.49	.332	.188
	45	.520	.50	.298	.078
	46	.343	.47	.231	.057
	47	.547	.49	.320	.179
	48	.585	.49	.294	.162
	49	.348	.47	.220	.060
	50	.278	.44	.260	.141
Gordon Items: 51-65	51 (G1)	.317	.46	.076	.230
	52 (G3)	.354	.38	.398	.299
	53 (G4)	.646	.47	.399	.201
	54 (G5)	.659	.47	.223	.272
	55 (G6)	.573	.49	.405	.334
	56 (G7)	.476	.49	.080	-.140
	57 (G8)	.634	.48	.274	.315
	58 (G10)	.683	.46	.250	.208
	59 (G13)	.720	.44	.476	.217
	60 (G22)	.537	.49	.329	.330
	61 (G25)	.537	.49	.222	.277
	62 (G29)	.329	.47	.418	.297
	63 (G32)	.817	.38	.396	.403
	64 (G42)	.683	.46	.364	.227
	65 (G52)	.634	.48	.257	.223

proportion of correct responses. The point biserial correlation with each item and total score represents its reliability, and the correlation with the external criterion score represents the validity of each item.

These tests take two full 50-minute periods to administer. Since it is not practical to give two-hour tests in the public schools as pre- and post-tests, it was necessary to reduce the length of the test to correspond to a single class period.

In the further consideration of these test items, it was decided that preference might be given to those items which use the piano as the means of expression. The rationale behind this decision was threefold: (1) it was hoped that items would not give an unfair advantage to the instrumentalists in the experimental population; (2) it was recognized that the piano allowed for control of many factors, such as intonation, tone quality, balance, and precision, which might totally influence aesthetic judgment had the items been performed, for example, by a string orchestra; and (3) it was believed that the use of a piano would aid in standardizing the quality of the recording of the test.

In shortening the test to a length practical for school use, two possibilities presented themselves as solutions, each of which was tried in a pilot study in the first year of the project. One possibility was to delete the Gordon Musical Sensitivity Test. The alternate possibility was to use the Gordon test items alone as the measure of achievement. Many arguments could be presented for the latter course of action. The test correlates well with teachers' ratings, it is internally consistent, and the items are short, thus permitting more trials in the limited testing time. Olsen (43) actually did use the Gordon test alone. His study compared the use of the Bernstein listening lessons presented as films, with their taped version. In each of the four classes tested, the students invariably scored lower on the test after instruction than they did on the original testing. It would thus appear that the Gordon test is not particularly suitable for test and retest application. A more proper use would be to compare results with established norms.

Table 3 shows the comparative results of the use of the Gordon Sensitivity Test and the Kyme Test of Aesthetic Judgments in Music. The sample was made up of 429 seventh graders for the Gordon test, of 1,048 for the Kyme, and 146 for the combined test.

The Gordon test items were finally omitted because, among other reasons, they are the least influenced by school music training and are performed by stringed instruments, which give an apparent advantage to the string instrumentalists in the validating sample. Another important reason why the Gordon items were omitted, though they correlate significantly with teachers' ratings or estimates of success in music, was the discovery that students tend to score lower on the second testing than they do on the first. Undoubtedly this is due to the length of the test, the lack of variety in the string presentation, and the probable lack of motivation on the part of noninstrumentalists to take the test. By deleting the Gordon test items, the reliability of the test, using the split half technique, was increased and there was but slight loss in correlation coefficients with teachers' ratings.

TABLE 3

A Comparison of the Gordon and Kyme Tests

Test	Reliability (correlations of odd and even items)	Validity (correlations with teachers' ratings)
Gordon Test of Musical Sensitivity 90 items N = 429	.81	.534
Kyme Test of Aesthetic Judgments 50 items N = 1,048	.87	.481
Combined test items	.77	.315
14 Gordon items		.257
36 Kyme items		.287
N = 146		

The final Test of Aesthetic Judgments in Music was then recorded stereophonically by a professional pianist. While it is observed that the test had as its origin the several music talent tests used as preliminary battery, in its final version it is a unique test.

Instructions given to students on how to mark the test and the test items used, together with a key for scoring them, are presented below.

The test description excludes the Gordon test items but includes 65 of the Kyme and Hevner items used in the experiment. For the final year of this research a short form of the test, comprising the first 50 items, was used exclusively.

Description of the Test of Aesthetic Judgments in Music

Tape Transcription

This is a test to discover what you hear in music which causes you to enjoy it. You will hear two short pieces which are very much alike. While you are listening, you are to decide which one of them you like better. Sometimes the two pieces are exactly alike except for the rhythm. Sometimes it is the harmony that is different; sometimes it is the melody; and sometimes it is the way the music is played that is different.

You are to listen carefully and mark on your paper which of the two performances you prefer: A or B. If the two pieces are exactly alike, or if you cannot tell which is the better, do not guess but put a mark in the third column under C.

Let us listen to the first pieces together. Find the number on your answer sheet. Listen carefully.

1A
1B

Do you agree that the first performance is the better? Most people do, so put a mark through the A opposite 1.

Now listen to the next example:

2A
2B

Here the better performance is the second, so you should make a mark through B opposite 2.

Now listen to number 3:

3A
3B

Did you prefer A or B? The answer is C, for the two performances were exactly alike, so put a mark through C opposite 3.

Remember: do not guess. If the two pieces are exactly alike or if you cannot tell which is the better, put a mark under C.

Now, if you understand how to mark your paper, we shall go on with the test.

Items Used for Illustration

1. Schumann: Kinderscenen, Op. 15, No. 2. Rhythm; A.
   This is an obvious rhythmic distortion; the notes of the original melody were kept, but we employed an entirely different rhythm to accompany it. We began with a triplet figure, while the original used a quarter note. Also we used fewer dotted rhythms. In general, our purpose in the distortion was to remove the emphasis from the places where it properly belonged. In the second measure we interpolated a waltz accompaniment.

2. Schumann: Kinderscenen, Op. 15, No. 13. Harmony; B.
   Harsh dissonance employed at random, without any regard for the rules of chord structure, is employed in this harmonic change. Notes are used which have no relation to the chord into which they are inserted. In addition, we break a rule of harmony by using a stationary bass over the measure line.

3. Bach: My Heart Ever Faithful, from the Pentecost Cantata. Melody; C.
   In the spoiled version of this simple melody irrelevant melody notes are inserted which are foreign to the existing chord structure; for example, we use "g sharp" in the melody over a simple C major triad. In addition we make the melody more dull by the use of several repeated notes.

Items in the Test and Key for Scoring

1. Haydn: Sonatina. Melody; A.
   In this composition the melody has been distorted in the first, third, fifth, sixth and seventh measures. The changes are obvious, inasmuch as they are contrary to the harmonic implications in the bass. In the next to the last measure we have two major seventh skips which are particularly unmelodic, and in the fifth measure we have an "e flat" melody note against a predominating C major harmony.

2. Schumann: Scherzino, Op. 26, No. 3. Rhythm; A.
   The change here is in the rhythm. The theme of the original is lively, and the rhythm very decided. In the mutilation, the dotted rhythm is removed, except in the last measure where its presence is incongruous, and a lifeless and awkward rhythm is substituted.

3. Liadoff: Prelude in C Major, Op. 40, No. 1. Harmony; B.
   The harmony in the bass of this composition is modified by replacing the existing chord structure with harsh dissonances out of character with the subdued, soporific suggestiveness of the original; substituting "a flat" and "f sharp" for a C major triad is an example of the type of change.

4. Dreyshock: Gavotte. Melody; A.
   One of the obvious features of change in this modification is the distance which the melody skips in going from one note to another.

We distort the melodic line so that it climbs up to a high "d sharp" while the next note descends an octave and a fifth to "g." Following this are two measures of tedious repetition and then again suddenly the melody skips a ninth. This type of change prevails throughout the composition.

5. Moussorgsky: Hopak, arranged for piano by Sergei Rachmaninoff. Form; B. (R or M)

   When one expects in this modification a return to the original theme, he gets instead an uninteresting two note figure repeated four times. In the last measure where the original has three notes, repetitions of a previous figure, the mutilation ignores this repetition and closes with one note.

6. Haydn: Andante Grazioso. Harmony; A.

   The mutilation is in this case relatively unimportant until the next to the last measure. Previous to this, there is a slight harmonic change in the second measure, and in the fifth, a melodic change from "e flat" to "e sharp." However, in the seventh measure, we make two startling digressions from the original: first, we change a "d" minor root position chord to an "f" major 6/4 chord; second, we substitute for a tonic 6/4, a dominant chord of "f." These substitutions, although not far removed from the rest of the composition in key relationship, seem unwarranted because they are not inserted in places where they sound well in relation to the preceding and following chords.

7. Gluck: Caprice. Melody; B.

   We distort the melody in the spoiled version of this simple theme in three ways: first, by reducing its range; second, by introducing monotonous repetitions; and third, by using melody tones foreign to the basic harmony.

8. Marpurg: La Voltigeuse. Rhythm; A.

   We take the joyousness, the sprightliness, out of this composition by changing the rhythm. The original is in 2/4 tempo, with many sixteenth notes which are all to be lightly or quickly played. We substitute eighth and quarter notes for these sixteenth notes, in this way dragging out the piece until the virility of the original is entirely gone.

9. Rameau: Rigaudon. Harmony; B.

   This Rigaudon has some irrelevant harmony in the modification. It is glaringly discordant and particularly so when inserted into this simple piece of Rameau's; the use of "b flat" in the bass against "b" in the treble is an example of the type of change.

10. Martini: Gavotte. Form; B. (R or M)

    In this Gavotte the first four measures of the spoiled version remain exactly as Martini wrote them. The following four of the original have a return comparable to the beginning of the piece, but in the mutilation have nothing but arpeggios.

11. Napravnik: Russian Dance. Rhythm; B.

The dynamic stirring quality of the Russian dance is completely eradicated in the modification of this composition. The rhythmic changes include the interpolation of a waltz rhythm and the addition of successions of triplets, sixteenth notes, and dotted rhythms, all of which are not contained in the original. The first part of the piece is spoiled by giving equal length to notes of unequal value, thereby removing any of the points of emphasis.

12. Beethoven: Sonata, Op. 2, No. 1. Form; A. (M)

This theme of two measures makes a vigorous ascent to the note "a flat." Immediately following is a repetition over dominant harmony, culminating in the note "b flat." For this latter progression we substitute a downward melodic line, obviously out of place in relation to the original theme. Furthermore, Beethoven in the sixth measure repeats part of the theme, but we abandon this altogether and instead use in the treble just one note, a high "e flat."

13. Chopin: Mazurka, Op. 24, No. 3. Melody; B.

In this mutilation we keep the melody as far as the sixth measure within a range of five notes as compared with nine of the original. In addition, the closing two measures of the correct version include a spread of seven notes while the spoiled item has only three. As a result, by comparison the spoiled version is dull because it keeps revolving around the same few notes, while the original progresses normally and consequently is more satisfying.

14. Schumann: Papillons, Op. 2, Finale. Rhythm; A.

This theme of Schumann's depends for its interest on its very decided 3/4 rhythm. The mutilation substitutes a combination of 3/4, 4/4, 6/4 which lacks any semblance of form or unity.

15. Dussek: Les Adieux. Form; A. (M)

We leave the first four original measures intact in the spoiled version of this item. In the following four we substitute an entirely different tune for the repetition which the correct version uses. These four measures have no melodic or rhythmic compatibility with the previous measures and seem entirely unwarranted.

16. Grieg: Gavotte, from the Suite Aus Halberg's Zeit. Harmony; B.

The dignity achieved through masterful harmonic progressions is ruined by the innovations which we insert into this spoiled version. We replace the smooth inner voice leading of the original by irrelevant notes which have no relation to the harmony of which they are made a part. Grieg achieves a climax by having the treble and bass progress by contrary motion to a given point; we keep the bass stationary, simplify the harmony, and as a result there is no climax. Furthermore in certain places we change the harmony in the bass to make it harshly discordant with the treble.

17. Scarlatti: *Sicilano*. Form; B. (H or M)

It is only in the third measure that we digress from the original in this item. Where Scarlatti repeats his theme in the bass, we use a disorganized melody which has a jarring, harsh sound both in itself and in combination with the treble.

18. Mozart: *Sonata IV in B Flat Major*. Melody; A.

This lovely melody of Mozart is spoiled through the insertion of notes which do not carry out the set of the previous structure. Mozart ascends to "g" in the second measure; we remain on "e flat." He repeats his theme at the beginning of the fourth measure; we substitute the melody note "b flat" for the original "f." In other words the normal expectation is distorted until the result becomes entirely lacking in form.

19. Raff: *Rigaudon*, Op. 204. Rhythm; B.

This composition digresses from the original rhythm in obvious ways. Two eighth notes become half notes in the spoiled version; in the same manner quarter notes change to eighths, regular rhythms become dotted, grace notes are eliminated, until scarcely a vestige of the sprightly original is left. The accompaniment is made unwieldy by inserting into the fast moving quarter notes of the original occasional triplets, which slow up the vigorous movement of the Rigaudon.

20. Grieg: *Sarabande*, from the Suite *Aus Halberg's Zeit*. Harmony; A.

The harmony in this item is modified through the insertion of unrelated dissonance. We insert chords at random which have no tonal relation with what precedes or follows. On the other hand in the sixth and seventh measures we have removed Grieg's interesting progressions so that these measures seem particularly incongruous in comparison with the earlier ones.

21. Scriabine: *Prelude in B Major*. Melody; A.

This spoiled melody is made to sound peculiar by making several of the notes clash with the established harmonic structure. The changes made are so pronounced that the melodic line played by itself sounds odd, unusual, as if the notes were chosen simply at random without any thought of a harmonic background for them.

22. Solovyeff: *In the Fields*. Rhythm; B.

The outstanding rhythmic characteristic of this composition which is in 6/8 time is a syncopation on the second and fifth beats of each measure. In the mutilation we remove this feature entirely. In the first place, we substitute for the 6/8 rhythm a combination of 3/4 and 4/4 time. We accompany this changed melody in varied ways: first, by simply using half notes, then by a waltz rhythm, again by triplets, and so on with similar variations throughout the whole piece.

23. Scott: *Serenata*, Op. 67, No. 2. Harmony; A.

We spoil the subtle harmonic procedure by using even more dissonance than the original, harsh sounds which are unorganized, which have no place in an ordered system. For example, we will use the "d flat" triad as basic harmony, and then in the melody will continue the original melodic fragment, "e," "f sharp," and "g sharp." The result is a conglomeration which has no past association for us, and therefore seems strange and peculiar.

24. Bach: Partita in B Flat. Form; B. (R)
In this Partita, our only change is in the fifth and sixth measures in the bass. We introduce a triplet figure and keep repeating it, instead of using the normal quarter note progression in the original. These triplets seem out of place for two reasons: in the first place, they are stupid melodically in themselves, and secondly, we use them in just these two measures. They occur nowhere else in the composition, and consequently have no unity in relation to the rest of the piece.

25. Mozart: Die Entfuhring, aus dem Serail. Melody; A.
This is a change in which the melody is made uninteresting by keeping it within a range of five notes instead of using the compass of an octave as does the original. For example, in the third measure the correct version ascends gradually to a high "g" while the spoiled version keeps repeating the notes "b" and "c." This obviously makes the tune dull and pointless. In the sixth and seventh measures, through similar repetition, this same effect is achieved again.

26. Bach: Gavotte, from the Sixth Suite for 'Cello. Form; B. (M)
In the modified version of this sprightly gavotte we leave the initial two measure theme as Bach wrote it. In the original version he repeats the theme with slight variants, but we diverge instead to an entirely extraneous musical idea which has no compatibility with the preceding measures. Throughout the composition we make these sudden digressions until the total result is simply a panoramic view of unrelated ideas.

27. Buchner: Cheerfulness, Op. 12, No. 1. Harmony; A.
In this composition the movable bass line provides a sympathetic background for the bright character of the original melody. It is the harmony of this bass which we mutilate by removing the unity and flow of its movement. The spoiled version repeats over and over again the same notes; it does not progress continuously to any given point, as in the original.

28. Chopin: Mazurka, Op. 7, No. 5. Rhythm; B.
This is one of the most obvious mutilations in the test. We remove all trace of the rhythmic variation in the original by having in the melody a continuous succession of 36 quarter notes. We use in the bass all sorts of unrelated accompaniments to support this tedious melody including a waltz rhythm, an eighth note single accompaniment, and then an eighth note chordal structure. We follow this variation by a return to the Mazurka character, and finally close with an arpeggio figure and some simple chords.

29. Beethoven: Sonata, Op. 27, No. 1. Form; B. (R or M)
This composition begins with an ascending arpeggio passage over the tonic C major chord; following this in the original is a repetition, a fifth higher over the dominant triad. In the spoiled version we begin the repetition, but after a few notes abandon it and close with four dull notes, unrelated to the previous structure. The feeling of climax which the original gives is completely eliminated.

30. Beethoven: Allegretto, from Sonata, Op. 27, No. 2. Harmony; A.
Beethoven has here a bass line which is excellently constructed; it is interesting in itself and has a complete unity with the rest of the composition. We distort this bass both by unmelodic skips and by changing the harmonic implications; as an example of the former, in going from the fifth to the sixth measures, we progress from "a flat" to "d flat." In other ways we spoil the harmony: by consecutive fifths in the second and third measures, and by consecutive octaves in the sixth and seventh. In general, all our harmonic progressions are without distinction as compared with those of the original.

31. Auric: Song from Moulin Rouge. Harmony; A.
The song was played twice. In the second performance the harmony was altered putting the cadence into C minor instead of E♭ major.

32. Brahms: Symphony No. I. Form; B.
The consequent phrase was played prior to the antecedent as a contrast to the original arrangement of the chorale theme from the fourth movement of this symphony.

33. Gershwin: Fascinatin' Rhythm. Harmony; B.
As a variant from the original, the harmony was changed in the sequential fourth, fifth, sixth and seventh measures.

34. Kyme: Minuet. Rhythm; A.
This minuet was played in good minuet style and then with misplaced accents which turned the gracefulness of the dance form into a monotonous 4/4 march.

35. Kern: All the Things You Are. Melody; B.
This beautiful song was marred in the mutilated performance by lowering the third melodic and harmonic sequence one-half step.

36. Dawes: Melody in A. Harmony; B.
A tonic harmony was substituted throughout for the colorful harmony originally employed in this composition.

37. Duke and Harburg: April in Portugal. Rhythm; A.
As compared to the first performance of this rhythmically interesting piece, the accompaniment of the altered version was one of confused rhythms.

38. Kyme: Ostinato. Harmony; B.
This piece with its constantly repeated bass pattern was performed so that the beauty due to the consistency of the ostinato was sacrificed in the repeated version for another bass pattern that alternated between the melodic and pure forms of the minor scale.

39. Warren and Dubin: I Only Have Eyes for You. Melody: B.
In the inferior rendition of this song, the song modulates and returns shakily to the tonic without proper preparation.

40. Gershwin: Rhapsody in Blue. Rhythm; A.
In the theme from this composition, the chromatic rhythmical obbligato in the third through sixth measures was changed to a six-eight rhythm, thus emasculating this interesting figure.

41. Gross: Tenderly. Harmony; B.
The original harmony in this song was reduced to $I-II_7-V$ in the mutilated version.

42. Sweet: Fight On. Harmony; A.
This item comprised two performances of this college football song. In the second performance the bass notes were altered by flatting the seventh tone of the scale.

43. Whiting: Guilty. Melody; A.
In the least preferred version, an extra measure was interpolated at the fourth measure, which extended the sequence into the wrong key.

44. Styne and Cohn: I Believe. Form; A.
The repetitious first two measures of this song was extended another half measure thus carrying the repeated one note to a point of nausea. This mutilation was compared to the original edition.

45. Rose: Coca Cola. Harmony; B.
This theme song was played with two harmonies, the first of which the theoretician would most likely prefer.

46. Alter: Manhattan Serenade. Harmony; B.
As an inferior version, the melody was altered. The octave basso repetition of the third measure was played a major second lower than originally intended.

47. Gershwin: American in Paris. Rhythm; A.
The melody was played legato and its rhythm altered in the inferior performance of this item.

48. Hagen: Harlem Nocturne. Melody; B.
Major thirds were substituted for the expected minor thirds in the melody of this piece, thus presenting a problem of consistency of mode between the melody and its harmony.

49. Schumann: *Little March*. Rhythm; B.
In the mutilated version the accent is changed so that the music appears to start with an anacrusis.

50. Schumann: *Happy Farmer*. Rhythm; A. (Tempo)
The piece is played normally at 96 beats per minute, but the mutilated version was played at 136 beats per minute.

51. Hindemith: *Piano Sonata No. 2*, First Movement, last page. Harmony; A.
In the mutilation, rhythms are left as is, but Hindemith's atonal harmonies with their quick color shifts are replaced by an innocuous version which sticks closely to the diatonic harmonies of C minor and E-flat major.

52. Milhaud: *Saudades do Brazil*, No. 7: "Corcovado," opening. Harmony; B.
In the mutilation, the tango (habanera) rhythm has been left intact, but the melody, in D major, has been harmonized in that key throughout, instead of in G major, as Milhaud wrote it. At the place where Milhaud shifts to A-flat major (with appropriate bi-chordal harmonies above), a version sticking to D major is provided. The purpose of the mutilation is to substitute straight diatonic harmonies for the bi-chordal and bi-tonal original.

53. Schoenberg: *Six Little Piano Pieces*, Op. 19, No. 4 (entire). Melody; B.
The mutilation retains the rhythmic scheme in general, but uses diatonic F major instead of Schoenberg's atonal procedures. This example stands midway between Schoenberg's early romanticism and his later 12-tone style.

54. Joplin: *Maple Leaf Rag*, second section. Rhythm; A.
The mutilation retains the left-hand two-step alternating bass, but all syncopations and cycles-of-3 are removed from the right hand, substituting square, on-the-beat melody notes with straight quarters and eighths.

55. Griffes: *The White Peacock* (from "Roman Sketches"), opening. Harmony: B.
Again, the mutilation retains the rhythmics and general melodic contour of the original, but innocent basic chords in F major are substituted for Griffes' rich ninths, augmented 11ths, and chromatic melody.

56. Bartok: *Bulgarian Rhythm No. 1* (No. 113 in Vol. IV of the "Mikrokosmos"), entire (without the repeat). Rhythm; A.
The mutilation does several things: in the first place it substitutes regular 4/4 time for Bartok's 7/8 (a routine signature for Bulgarian, Yugoslavian, and Greek folk music). Next, Bartok's eccentric 5-measure phrases are replaced by balanced 4-measure phrases. The continuous *ostinato* of Bartok's left hand (which lacks

chordal feeling in its bagpipe drone fifth) is replaced by shifting simple common chords in D minor, while Bartok's wildly chromatic and atonal melody is replaced by a routine, dull conjunct D minor tune, harmonized in trite thirds and sixths like 19th century cafe gypsy style. Bartok's introduction and coda (each an odd 3 measures featuring the dissonant interval of a major second) are replaced by a symmetrical 2 measures relying on a consonant full minor triad.

57. Casella: Eleven Children's Pieces, No. 6 ("Siciliana"), opening. Melody; A.

Casella makes consistent use of the Dorian mode in both melody and harmony; the mutilation changes this in both respects to plain D minor, harmonic form. The mutilation also avoids the dotted rhythm in the melody (characteristic of the siciliana; other niceties are omitted, such as the grace notes in measures 6 and 8, and the slight melodic variation in measure 8 as compared with measure 6). The colorful Neapolitan 6/4 in measures 10 and 12 is replaced by an ordinary dominant, and the cadence is plain D minor, instead of Casella's Picardy third.

58. Casella: Eleven Children's Pieces, No. 8 ("Minuetto"), opening. Melody; B.

Casella's melody and harmony are both extremely modal; the intervals featured in the chords are 2nds, 4ths, 7ths, and 9ths, plus superimposed 4ths and 5ths; the major 7th is particularly favored. All this gives a cool, non-tonal feeling to the whole. The mutilation interprets the entire melody in straight C major, with primary triads, substituting a tonal impression for a modal.

59. Grieg: Bell Ringing, Op. 54, No. 6 ("Lyric Pieces, Book V"), opening. Melody; A.

This is perhaps Grieg's most unusual piece, and is frankly impressionistic in the new manner of his day. The blurred ostinato of open 5ths in the bass, plus the superimposed sandwiched sets of three 5ths in the treble (all moving in continuous consecutive 5ths), constitute a piece no one would dream was Grieg unless he actually knew the composition. Each piled up 2-measure group contains at least 5 (and sometimes 6 or 7) pitches, so that 9ths, 11ths, and various cluster chords predominate. The mutilation is in a clear C major, with primary triads, and a simple modulation to G. It removes the ostinato and pedal point technique of the original, uses pure triads and dominant 7ths, and substitutes a sweet and insipid chordal melody for the original blurs of color.

60. Shostakovich: Three Fantastic Dances, Op. 1, No. 1, opening. Melody; B.

The mutilation removes the dotted character of the original in favor of a smooth 8th and triplet movement; in place of Shostakovich's far-ranging and swiftly moving right-hand part in the 3rd and 7th measures, a gentle, narrow, and sweetly chordal melody is substituted. In the original, the harmony begins darkly on the dissonant half-diminished chord on the tonic and shifts to a major 11th with flatted 9th on the subdominant, not to mention the Neopolitan major seventh in the 3rd bar which moves to a dominant augmented triad. The mutilation uses conventional, non-dissonant harmony in C major.

61. Debussy: Preludes, Book I (No. 2, "Voiles"), 3rd page. Harmony; B.
This excerpt involves a whole-tone passage based on the pitch C, followed by a switch to black-key pentatonic. The mutilation begins by altering F-sharp and A-flat to F and A, then interpreting the melody in B-flat major (with tonic and dominant harmonies). At the pentatonic entrance, in the mutilation, the B-flat triad becomes B-flat dominant 7th chord, and the arpeggios (formerly on black keys) are done on that chord. The cool, floating, suspended quality of the original harmonies is thus completely canceled.

62. Gershwin: Preludes for Piano, No. 2 (opening). Melody; B.
This is a blues; the mutilation avoids all chromaticism and invents a simple tune in C-sharp major, with no blues 7th; the bass ostinato is replaced by shifting primary triads in root position, with no chromatic moving tenor part. The climax of the melody is avoided, and the contrary motion dissonant tenor parts at the cadence are replaced by a barbershop chromatic slide in 6ths.

63. Cowell: Amerind Suite, No. 1 ("The Power of the Snake"), Variation 1-c. Melody; A.
This is an American Indian interpretation, with cluster chords throughout. The mutilation invents a simple new melody, so that it can be done in a straightforward D minor throughout (harmonic form), using essentially only tonic and dominant. The mutilation avoids Cowell's ingenious inversion in the 6th bar as compared to the 2nd. The power and punch of the original are missing in the clear harmonies of the mutilation.

64. Poulenc: Impromptu, No. 3 (from "Six Impromptus"), opening. Harmony; A.
This is conceivably a deadpan spoof of a schottische, in Poulenc's famous "wrong note" style. Part of the spoof is in Poulenc's 3/4 time signature (like Schumann's 3/4 "March of David's Men Against the Philistines"--last movement of the "Carnaval" suite). The mutilation is a little proper schottische in 4/4 time--and no chromatic or dissonant counterpoint, or two keys at once (G and F-sharp) as in measures 7 to 11 of the original. Harmony in the mutilation is extremely diatonic.

65. Ravel: Sonatine, Movement No. 1, Secondary Theme of exposition. Harmony; B.
The mutilation treats Ravel's exact theme with two chords only; tonic and dominant in E major; whereas Ravel's harmonization is parallel shifting major triads, with no particular key, and a strong modal touch. Needless to say, consecutive 5ths are featured in both right and left hand.

Item Statistics of the Test of Aesthetic Judgments in Music

Item analysis is basically concerned with selecting items that result in a test of prescribed characteristics. Chief among these characteristics, of course, is the ability to identify high and low achievers; therefore, the items need to be difficult enough to discriminate between good or poor performers. Second, among the desired characteristics is that the test should be internally consistent. Third, it should agree with some external criterion of success. In other words, the resulting test should be sensitive to the testees' individual differences in musicality. It should, moreover, be reliable as well as valid.

Difficulty of the Items and Their Variation

Each test item, comprising comparisons of the playing of two short pieces, was given to a sample of 845 students who represent the population being studied. The items were answered with one of three alternatives: the first performance is better, the second performance is better, or the two are identical. The scoring was right with the weight of one or wrong with the weight of zero. The scoring resulted in an NXK (i.e., number of subjects multiplied by the number of items) matrix of ones and zeros, so that a row sum determined the score of each person and a column sum divided by the total number of subjects determined the item difficulty. Since the test is a power test, item difficulty defined as the proportion of correct responses represents a characteristic of the item in relation to the ability of the group. The basic statistics of item difficulty for 65 items can be seen in Table 2. The item difficulty of the test ranges from .20 to .918, the standard deviation being .143. The mean difficulty is computed to be .637. The histogram of difficulty indices indicates that items are approximately normally distributed, indicating that the test is good as a power test.

The measure of item difficulty and standard deviation of each item can be utilized if another item analysis group is different from the test group and it becomes necessary to calibrate the difficulty as suggested by Thurstone (67).

Reliability Indices of the Items

There are about twenty-five item statistics which have been suggested by Guilford (18) and Anastasi (2) to determine the discriminating power of items. These are customarily based upon the percentage correct for the upper and lower K percent (i.e., 25-27-33 percent) according to some criterion measures. These measures are usually incidental short-cut methods approximating the correlation between an item on a given criterion. Availability of computing facilities makes it possible to ignore these arbitrary short-cut methods. In computing the internal consistency of items by evaluating the significance levels of Chi-square values for a given percentage of passes in upper and lower K percent subgroups, the information about the middle portion of the total group would not be utilized. Accordingly, point biserial correlation coefficients of items with the total score were computed as shown in Table 2. The standard error of the point biserial correlation coefficient amounts to .0344 ($\text{Srpb} = \frac{1}{\sqrt{N}}$), which is invariant with all the coefficients. Thus the critical ratio for testing hypotheses that the coefficients are not different from zero, α (alpha) level .01, is .119 (Srpb 2.58 = .119). According to this critical ratio, it was found that all the items, except for Gordon item number 56, were significantly correlated to the total test score. A correlation of .088 is significant at the 1 percent level.

Validity Indices of the Items

The importance of item validity as well as test validity leads to careful consideration of the kind of criterion measure which is valid itself as well as reliable with which the validity of each item may be evaluated. It is obvious that any validational problem centers around the characteristics of the criterion measure itself. Knowing full well the dangers inherent in the process, it nevertheless was determined to use as a validating criterion teachers' ratings of their students' musicality. This judgment was conditioned by two factors: (1) the participating teachers needed to have confidence that we were attempting to measure what they were striving to teach; and (2) with Elizabeth Taylor (63), we must regretfully admit that, for estimating the musicality of students, no other single measure of success in music equals the estimates of teachers who have observed the subjects in many musical situations. Accordingly, it would appear worth while to look at item validities which are defined as correlation coefficients of items with the criterion rating.

Proceeding in the same manner as for determining the internal consistency of each item, point biserial correlation coefficients were determined for items as shown in Table 2. Since the standard error of the point biserial correlation is .0601, and the critical region for testing $\text{rpb} = 0$ at α level .05 is .119, it can be seen that 52 items are found to be acceptable and the remaining items are not significantly different from zero correlation. However, the result should not be taken at its apparent value because the criterion measure itself is not well justified and the validating sample percentage is rather homogeneous in comparison to a total population.

Test Reliability and the Error of Measurement

Once item statistics are determined, several test statistics can be easily determined. The Kuder-Richardson formulas for test reliability, as shown below, give a good estimate of a lower boundary for the reliability coefficient of a test in the absence of test and retest experimental estimates.

$$\gamma_{tt} = \left[\frac{K}{K - 1}\right]\left[1 - \frac{\sum_{i=1}^{K} s_i^2}{s_t^2}\right], \quad \gamma_{tt} = \left(\frac{K}{K - 1}\right)\left[1 - \frac{\sum_{i=1}^{K} s_i^2}{\left(\sum_{i=1}^{K} \gamma_{t_i} s_i\right)^2}\right]$$

According to these formulas (Guttman, 20), the lower boundary of the reliability coefficient of the Test of Aesthetic Judgments in Music is computed to be .818. The rather low value may be attributed to one of two reasons: either the assumption for using the formulas has not been met (that is, the average covariance between nonparallel items is equal to the average covariance between parallel items), or simply that all inter-item correlations are not equal (Gulliksen, 19).

Taking into account the fact that the test aims at measuring four domains (i.e., sensitivity to melody, harmony, rhythm, and form) as bases for making aesthetic judgments in music, the reason for the rather low reliability coefficient becomes clear. The basic assumption in developing the theory of the influence of group heterogeneity is that the error of measurement does not vary systematically with the test score. The computed value of the error of measurement is found to be 3.06.

A multiple correlation of the criterion with a weighted composite of 65 items as predictors, by means of a stepwise regressional analysis, was made. Using teachers' ratings as a criterion, this analysis, after 53 steps, yielded a multiple correlation coefficient of .532 significant at the 5 percent level.

One of the more important problems in the measurement of psychological characteristics is how to ensure the evidence of construct validity of a test. Since the author started the construction of the present test with the hypotheses of four domains, an attempt to test the hypotheses is a natural first step toward establishing the evidence of construct validity. In the following sections, the results of cluster analysis of the 65 items will be presented and discussed. Before presenting the results, some exposition concerning the method employed would appear to be appropriate.

Probably the best way of factor analyzing items would be the multiple-group-factoring method or the cluster analysis as explained by Guttman (21). Tryon (68), who is responsible for the derivation of the multiple-group-factor analysis, demonstrated the use of it for testing hypotheses of item clusters by using computer programs. This present analysis follows Tryon's procedure.

An Empirical Analysis of Item Clusters

If the Test of Aesthetic Judgments in Music is truly measuring four domains of musical sensitivity (i.e., melody, harmony, rhythm, and form) as hypothesized, the items that purport to measure each domain should cluster together more closely than those of other domains in an empirical factor space. Each domain has to be defined by a certain number of rationally defined items in terms of oblique factor coefficients. Final factor statistics can be determined through the use of some component programs in the B. C. Tryon System which are otherwise computationally prohibitive.

The defining variables rationally preset by the author are shown in Table 4. According to this rational definition of domains, an original factor pattern matrix was determined in which factor coefficients of each variable on each rationally preset domain are found. The proportion of initial communality exhausted by four dimensions was found to be .8532, which indicates that most of the common variances are accounted for by the four domains.

TABLE 4

Rationally Defined Variables of Four Domains of Musical Sensitivity

Item	Oblique Factor Coefficient	Communality	Average Reliability with Definers
LBFC = .179		Melody Items	A-Reliability = .552 (definers only)
19	.476	.251	.154
18	.470	.288	.152
2	.440	.204	.142
3	.424	.211	.137
35	.415	.212	.134
13	.408	.203	.132
31	.402	.200	.130
22	.378	.162	.122
1	.350	.149	.113
14	.339	.153	.110
33	.311	.146	.101
44	.310	.122	.100
5	.294	.121	.095
8	.186	.072	.060
26	.154	.094	.050

Table 4 (continued)

Item	Oblique Factor Coefficient	Communality	Average Reliability with Definers
LBFC = .1696		Harmony Items	A-Reliability = .613 (definers only)
17	.514	.317	.152
39	.365	.140	.108
40	.358	.151	.106
28	.343	.168	.102
24	.337	.166	.100
29	.323	.109	.096
7	.311	.117	.092
34	.292	.126	.086
43	.275	.091	.081
4	.272	.078	.080
46	.264	.076	.078
21	.234	.089	.069
10	.201	.049	.059
31	.182	.200	.054
37	.177	.176	.052
LBFC = .177		Rhythm Items	A-Reliability = .585 (definers only)
15	.533	.361	.167
9	.420	.226	.131
35	.392	.212	.123
32	.381	.180	.119
3	.373	.211	.117
12	.324	.178	.101
45	.304	.147	.095
48	.290	.116	.091
20	.263	.101	.082
23	.177	.071	.055
47	.157	.108	.049
38	.145	.034	.045

Table 4 (continued)

Item	Oblique Factor Coefficient	Communality	Average Reliability with Definers
LBFC = .164		Form Items	A-Reliability = .473 (definers only)
18	.415	.288	.097
42	.405	.203	.095
25	.301	.106	.070
36	.296	.168	.069
11	.241	.064	.056
16	.228	.134	.053
41	.169	.080	.039
30	.168	.129	.039
6	.129	.022	.030
13	.125	.203	.029
27	.099	.111	.023

Table 5 shows the internal consistency of the clusters.

TABLE 5

Correlations between Cluster Domains

	Melody	Harmony	Rhythm	Form
1. Melody	1.0000	0.8101	0.6354	-0.5391
2. Harmony	0.8101	1.0000	0.2637	-0.6737
3. Rhythm	0.6354	0.2637	1.0000	0.0681
4. Form	-0.5391	-0.6737	0.0681	1.0000

Validities of Cluster Scores
(accuracy of factor estimates)

Melody	0.8835
Harmony	0.8407
Rhythm	0.6022
Form	0.5709

Researchers in Music Education have always been interested in the relationship of intelligence and musical achievement. Four hundred junior and senior high school students at the University of California Summer Demonstration School took the Test of Aesthetic Judgments in Music as well as fifty-four psychological tests from the Holmes Inventory (25). The Holmes battery of tests was used to differentiate superior readers and spellers from their classmates. These test data were processed to determine the contribution to variance in aesthetic sensitivity in music which each of those measures makes (Table 6).

TABLE 6

Correlation of Holmes Inventory with Test Scores in Aesthetic Sensitivity in Music

Psychological Tests	.r
Speed of reading	.161
Power in reading	.247
Visual verbal meaning	.246
Spatial relations	.147
Inductive reasoning	.273
Word fluency	.137
Speed in addition	.203
Mechanical aptitude	.105
Verbal analogies	.218
Vocabulary in context	.284
Vocabulary in isolation	.264
Range of information	.200
Phonetic associations	.258
Word sense	.261
Homonymic meaning	.191
Prefixes	.189
Suffixes	.037
Latin, Greek roots	.142
Visual spelling	.147
Dot figure embedded	.132
Q-symbol closure	.158
Word embedded	.153
Perceptions of reversals	.181
Auding ability	.280
Tonal memory	.372
Tone quality discrimination	.310

Psychological Tests	.r
Tonal intensity	.276
Tonal movement	.334
Pitch duration	.274
Rhythmic perception	.325
Pitch discrimination	.377
Melodic taste	.513
School adjustment	.049
Scholarly values	.025
Study habits	.078
Effective study plan	-.012
Outdoor interests	-.050
Mechanical interests	-.084
Mathematical interests	-.160
Interest in science	-.005
Interest in persons	-.042
Artistic interests	.085
Literary interests	.077
Musical interests	.138
Social interests	-.024
Clerical interests	-.132
School problems	-.129
Post-graduate anxiety	-.031
Problems with self	-.021
Problems with others	-.047
Home problems	-.035
Boy-girl problems	-.044
Health problems	-.062
Conflict in values	-.044

Correlations of .19 are significant at the 5 percent level.
N = 400.

RESULTS

In the fall and spring of the school year 1966-67, the reconstituted Test of Aesthetic Judgments in Music was administered at the beginning and end of each semester to the seventh grade students in the music classes of the nine participating junior high schools. The 3,083 students participating in the testing program included a zero control sample of 671 students who were not enrolled in music in the first semester of the experiment. Of this total, 555 comprised the experimental sample, 645 the orchestral control, 737 the choral control, 405 the guided listening sample, and 70 are classed as a "music reading" control.

The first columns of Table 7 show the means of the pre-instruction and post-instruction testing. The results suggest that music composition was indeed a significant developer of musicality in the nine junior high schools.

To test the hypothesis that those students who had received training in musical composition would show greater achievement on a test of aesthetic sensitivity in music than students trained in other ways, it was necessary to statistically equate the various samples on pre-test scores. The statistical treatment of the data utilized was an analysis of covariance. This procedure takes into account the regression line and produces adjusted final test means for the experimental and control samples based upon the premise that the two samples are statistically equated on the first testing. F values are computed which are then interpreted in relation to the degrees of freedom involved in the analysis.

Table 7 shows the results of the analysis of covariance, comparing the total experimental sample with each of the total control samples. An F value of 3.84 is required for ∞ degrees of freedom to be significant at the 5 percent level.

From these findings it is evident that we must accept the hypothesis that there is a significant difference among treatments after adjusting with covariates. In three of the five experimental situations, there is a difference in favor of the experimental curriculum significant at the 1 percent level.

An analysis of composite data from nine greatly differing urban schools does not give the total picture in the assessment of varying modes of instruction. More meaningful by far, in making curriculum decisions, is a comparison of the experimental and control classes in each of the separate junior high schools. Measured differences, reflecting the appropriateness of one curriculum over another, are concealed when the data are grouped as total samples.

If at this stage we would believe, with the report of the Yale Seminar, that composition is a sure developer of musicality at all grade levels, we must examine the curriculum school by school to see if it is

TABLE 7

Comparison of Pre-Instruction and Post-Instruction Testing

Sample	N	Pre-Test Mean	Post-Test Mean	Adjusted Mean	Standard Error	F Value	Deg. of Freedom	Signif. of Dif.
Experimental	555	26.89	28.03	26.33	.20	54.47	1223	.01
Zero control	671	23.03	22.88	24.28	.18			
Experimental	555	26.89	28.03	26.78	.25	29.42	1289	.01
Choral	737	23.57	24.02	24.96	.21			
Experimental	555	26.89	28.03	28.74	.27	2.14	1187	Not sig.
Orchestral	645	28.76	28.80	28.78	.25			
Experimental	555	26.89	28.03	27.15	.22	11.78	957	.01
Listening	405	24.47	24.51	25.61	.62			
Experimental	555	26.89	28.03	27.89	.25	.02	622	Not sig.
Music reading	70	25.25	25.99	27.20	.30			

also effective at each socioeconomic level. Perhaps the same education is not equally effective for all populations.

Second in importance to the knowledge that a particular experimental curriculum does or does not produce desired results is the knowledge concerning which age or subculture it would serve most adequately. It is appropriate here to include a paragraph describing each school in the sample, along with any mitigating circumstances.

Schools A, B, and C are located in the poorer areas of the cities. The schools' racial make-up is predominantly non-Caucasian. The instrumental performing groups are not of the highest quality. None have participated in the state competition festivals. Little or no private instrumental study exists.

Schools D, E, and F are racially balanced schools, and the population is drawn from middle-class families. The performing groups are quite good. Reading of music is stressed in the general music classes and the choirs perform worthy literature.

Schools G, H, and I represent the upper middle-class population. Students come from professional families as a rule and are educationally motivated. Many of the students in the general music classes also study instrumental music.

Table 8 describes the data collected for each school and compares the experimental classes in musical composition with each of the control classes.

TABLE 8

Comparison of Experimental and Control Classes by School

Sample	N	Pre-Test Mean	Post-Test Mean	Adjusted Mean	Standard Error	F Value	Deg. of Freedom	Signif. of Dif.
				School A -- Fall Semester				
Experimental	39	21.69	21.00	23.31	1.08	10.31	153	.01
Zero control	117	21.05	17.64	18.00	1.23			
Experimental	39	21.69	21.00	19.72	.98	2.04	58	Not sig.
Choral	22	14.86	16.27	17.11	1.38			
Experimental	39	21.69	21.00	19.62	.70	.92	71	Not sig.
Begin. instr.	35	17.94	17.05	18.49	.74			
Experimental	39	21.69	21.00	20.47	.88	.71	47	Not sig.
Listening	11	17.09	16.90	18.77	1.74			
				Spring Semester				
Experimental	22	22.18	23.59	23.32	1.21	.01	52	Not sig.
Choral	33	20.46	22.61	23.06	1.58			
Experimental	22	22.18	23.59	23.84	1.07	.04	48	Not sig.
Instrumental	29	24.41	23.72	23.53	.93			
Experimental	22	22.18	23.59	23.09	1.22	.45	34	Not sig.
Listening	15	18.20	21.00	21.72	1.51			
Experimental	22	22.18	23.59	23.34	1.17	1.28	25	Not sig.
Music reading	6	19.50	19.50	20.39	2.29			

Table 8 (continued)

Sample	N	Pre-Test Mean	Post-Test Mean	Adjusted Mean	Standard Error	F Value	Deg. of Freedom	Signif. of Dif.
School B -- Fall Semester								
Experimental	19	29.15	25.10	25.14	1.50	3.90	126	Not sig.
Zero control	110	23.30	19.80	19.71	2.15			
Experimental	19	29.15	25.10	23.42	1.53	2.04	38	Not sig.
Choral	22	22.40	25.18	26.62	1.40			
Experimental	19	29.15	25.10	25.10	1.40	.11	31	Not sig.
Instrumental	15	29.40	24.40	24.39	1.58			
Experimental	19	29.15	25.10	25.05	1.66	3.21	33	Not sig.
Listening	17	28.70	29.35	29.40	1.75			
Experimental	19	29.15	25.10	24.30	1.44	1.18	36	Not. sig.
General music	20	23.10	21.20	21.96	1.40			
Spring Semester								
Experimental	42	22.73	23.28	24.79	.50	.03	166	Not sig.
Choral	127	25.06	25.40	24.90	.28			
Experimental	42	22.73	23.28	22.86	.75	.20	51	Not sig.
Instrumental	12	19.58	20.66	22.12	1.43			
Experimental	42	22.73	23.28	24.17	.75	.75	65	Not sig.
Listening	26	26.38	26.69	25.26	.96			

Table 8 (continued)

Sample	N	Pre-Test Mean	Post-Test Mean	Adjusted Mean	Standard Error	F Value	Deg. of Freedom	Signif. of Dif.
				School C -- Fall Semester				
Experimental	11	21.58	25.36	25.07	1.67	2.95	86	Not sig.
Zero control	78	20.55	21.96	22.00	.62			
Experimental	11	21.58	25.36	26.09	1.41	5.79	38	.01
Choral	30	22.36	22.36	22.09	.85			
Experimental	11	21.58	25.58	26.20	1.21	4.29	50	.01
Orchestral	42	24.80	23.51	23.32	.64			
Experimental	11	21.58	25.58	25.94	1.32	5.49	35	.01
Listening	27	22.34	22.34	22.17	.90			
				Spring Semester				
Experimental	26	23.00	22.34	21.07	.38	.23	50	Not sig.
Choral	27	19.70	20.11	21.33	.37			
Experimental	26	23.00	22.34	23.14	.61	.03	64	Not sig.
Orchestral	41	25.36	23.51	23.00	.49			
Experimental	26	23.00	22.34	22.15	.32	.05	38	Not sig.
Begin. instr.	15	22.33	21.93	22.27	.43			
Experimental	26	23.00	22.34	21.13	.33	.10	37	Not sig.
Listening	14	18.85	19.07	21.32	.45			

Table 8 (continued)

Sample	N	Pre-Test Mean	Post-Test Mean	Adjusted Mean	Standard Error	F Value	Deg. of Freedom	Signif. of Dif.
School D -- Fall Semester								
Experimental	25	19.48	22.76	26.50	.63	19.92	150	.01
Zero control	128	24.28	24.10	23.37	.27			
Experimental	25	19.48	22.76	24.49	1.30	3.04	34	Not sig.
Choral	12	29.83	32.75	29.12	2.04			
Experimental	25	19.48	22.76	25.89	1.43	10.11	63	.01
Orchestral	41	34.43	34.36	32.45	1.01			
Experimental	25	19.48	22.76	24.45	1.26	.03	53	Not sig.
Listening	31	24.19	25.51	24.14	1.12			
Experimental	25	19.48	22.76	23.97	1.00	.007	48	Not sig.
Music reading	26	24.23	25.26	24.09	.98			
Spring Semester								
Experimental	22	28.22	27.59	24.24	4.08	2.93	54	Not sig.
Choral	35	24.71	33.31	35.41	2.64			
Experimental	22	28.22	27.59	29.15	1.23	7.69	60	.01
Orchestral	41	34.43	34.36	33.52	.88			
Experimental	22	28.22	27.59	27.25	1.15	2.08	37	Not sig.
Listening	18	27.16	24.33	24.74	1.28			
Experimental	22	28.22	27.59	27.04	1.12	.23	46	Not sig.
Music reading	27	26.44	27.25	27.73	1.01			
Experimental	22	28.22	27.59	26.68	1.12	1.07	42	Not sig.
Music reading	23	25.73	24.17	25.03	1.10			

Table 8 (continued)

Sample	N	Pre-Test Mean	Post-Test Mean	Adjusted Mean	Standard Error	F Value	Deg. of Freedom	Signif. of Dif.
				School E -- Fall Semester				
Experimental	46	27.32	25.39	24.71	.74	.80	123	Not sig.
Zero control	80	25.68	25.16	25.55	.56			
Experimental	46	27.32	25.39	24.98	.76	6.40	67	.01
Choral	24	25.04	27.58	28.35	1.07			
Experimental	46	27.32	25.39	21.63	.49	4.42	138	.01
Begin. instr.	95	21.32	21.11	22.93	.32			
Experimental	46	27.32	25.39	24.89	.70	.01	57	Not sig.
Listening	14	24.14	23.42	25.07	1.30			
Experimental	46	27.32	25.39	24.85	.74	1.80	62	Not sig.
Rhythmic improv.	19	24.63	21.68	22.98	1.16			
				Spring Semester				
Experimental	45	25.48	30.20	29.63	.52	6.63	143	.01
Choral	101	25.05	31.07	31.99	.72			
Experimental	45	25.48	30.20	31.48	.85	4.50	92	.01
Orchestral	50	29.52	30.06	28.90	.80			
Experimental	45	25.48	30.20	30.05	1.00	8.79	56	.01
Listening	14	24.44	23.42	23.88	1.81			

Table 8 (continued)

Sample	N	Pre-Test Mean	Post-Test Mean	Adjusted Mean	Standard Error	F Value	Deg. of Freedom	Signif. of Dif.
				School F -- Fall Semester				
Experimental	29	26.96	28.37	26.33	.75	7.07	53	.01
Zero control	27	21.48	21.03	23.23	.78			
Experimental	29	26.96	28.37	28.08	.92	1.70	37	Not sig.
Choral	11	24.81	25.00	25.76	1.51			
Experimental	29	26.96	28.37	30.62	.92	2.46	60	Not sig.
Orchestral	34	33.26	30.44	28.52	.84			
Experimental	29	26.96	28.37	27.02	1.01	2.10	36	Not sig.
Listening	10	18.70	19.80	23.72	1.88			
Experimental	29	26.96	28.37	26.53	1.18	8.77	82	.01
Music reading	56	21.17	21.12	22.07	.82			
				Spring Semester				
Experimental	46	23.41	30.41	33.60	.96	.13	88	Not sig.
Choral	45	27.06	32.91	33.09	.97			
Experimental	46	23.41	30.41	30.35	1.69	8.53	66	.01
Orchestral	23	27.26	36.95	36.99	1.44			
Experimental	46	23.41	30.41	30.57	1.60	2.84	68	Not sig.
Listening	24	30.70	34.37	34.25	1.32			

Table 8 (continued)

Sample	N	Pre-Test Mean	Post-Test Mean	Adjusted Mean	Standard Error	F Value	Deg. of Freedom	Signif. of Dif.
School G -- Fall and Spring Semesters								
Experimental	54	29.55	28.61	25.10	.46	1.18	171	Not sig.
Zero control	120	23.89	24.15	25.72	.29			
Experimental	54	29.55	28.61	28.27	.51	1.25	90	Not sig.
Choral	39	27.89	26.89	27.36	.60			
Experimental	54	29.55	28.61	29.62	.39	1.59	187	Not sig.
Orchestral	136	26.99	30.49	30.29	.35			
Experimental	54	29.55	28.61	27.99	.64	2.04	81	Not sig.
Listening	30	27.03	28.43	29.55	.86			
School H -- Fall Semester								
Experimental	41	32.56	34.51	27.04	.09	39.27	143	.01
Choral	105	18.51	17.70	21.78	.04			
Experimental	41	32.61	34.54	34.43	1.64	1.39	190	Not sig.
Orchestral	152	31.70	32.19	32.23	.86			
Experimental	41	32.61	34.54	34.34	.88	1.38	56	Not sig.
Listening	18	30.35	31.84	32.37	1.40			
Spring Semester								
Experimental	23	36.65	35.69	34.04	1.19	32.71	150	.01
Choral	130	22.18	23.08	25.94	.72			
Experimental	23	36.65	35.69	35.15	1.30	.80	44	Not sig.
Listening	24	35.50	33.00	33.51	1.27			

Table 8 (continued)

Sample	N	Pre-Test Mean	Post-Test Mean	Adjusted Mean	Standard Error	F Value	Deg. of Freedom	Signif. of Dif.
			School I -- Fall and Spring Semesters					
Experimental	46	23.41	30.41	33.60	.96	.13	88	Not sig.
Choral	45	27.06	32.91	33.09	.97			
Experimental	17	23.41	30.41	30.35	1.69	8.53	37	.01
Orchestral	23	27.26	36.95	36.99	1.44			
Experimental	17	23.41	30.41	30.57	1.60	2.84	38	Not sig.
Listening	24	30.70	34.37	34.25	1.32			
			Spring Semester					
Experimental	49	30.57	34.06	35.30	.86	8.11	94	.01
Orchestral	48	32.54	33.06	31.79	.87			
Experimental	49	30.57	34.06	29.98	.88	3.18	76	Not sig.
Listening	30	22.26	20.70	27.36	1.14			

DISCUSSION

The purpose of this research was twofold: (1) to test certain hypotheses presented by the Yale Seminar on Music Education, and (2) to develop a test of musicality. In review of the seminar's statements, the evidence collected will now be analyzed to substantiate or refute the Seminar's assumptions.

> Statement 1: Written composition is an important learning tool, a sure developer of musicality in students at all levels of talent and age.

The data do not support this hypothesis outright. Students taking courses in musical composition equaled or exceeded their peers in orchestra, choir, music reading, and guided listening programs on tests of musical sensitivity in three of the five experimental comparisons.

The Seminar never intended that musical composition should be divorced from the performance aspect, though in scientific endeavors it is essential that the experimenter hold as many variables constant as is practical. In this research, composition was taught as an entity in every school but two. In these two schools, H and I, it was possible for students to enroll in both general music classes and performance classes concurrently. The highest scores on the Test of Aesthetic Judgments in Music were attained by those students who were in composition classes and orchestra at the same time.

> Statement 2: Reading the clarinet part in the band somehow does not produce that essential attribute of the musician and perceptive listener--the capacity to hear internally a musical line.

The Seminar was rather conservative in its estimate of the value of performance in developing musical sensitivity. The data presented here show that performance, both instrumental and vocal, are prime means of developing musicality at the junior high school level. The scores of 645 orchestral students in the experiment exceeded all other scores when mean scores were adjusted with covariates.

> Statement 3: Of the three main components of the curriculum, composing, performing, and listening, perhaps the most difficult one for the teachers to guide is listening . . . Defenders of a listening program acknowledge that so far it seems to have had little success below the college level, but they attribute this to a lack of proper classroom guidance, due in turn to insufficient knowledge and skill on the part of the teachers.

The listening program was an unexpected disappointment in this research. The first semester the listening program was comprised of the

Bernstein films and tapes. During this semester, in four of the nine schools the listening control group actually regressed from the time of pre-instruction testing to post-instruction testing. It is probably fair to say that the Bernstein materials were too sophisticated for the urban junior high school population, particularly of the sample described as culturally deprived.

In the second semester of the experiment, an alternate listening program was introduced into four of the schools. The course, generally called "Music as a Humanity," attempted to bring about cognitive learning in music through analysis of representative works from the allied arts, music, painting, poetry, sculpture, drama, and architecture. While this innovation was more successful, it would appear that passive learning in music is not so effective as modes of learning that call for commitment and ego involvement.

Statement 4: New approaches in elementary teaching that would bring about a maximum of reading proficiency should be tried.

The experimental use of the shaped-note system, a crutch for overlearning solfeg, was indeed a rewarding experience as far as teaching music in the lower socioeconomic area schools is concerned. Through this historically intriguing device, the musically illiterate children in the experiment were able to get at a quantity and quality of music whose difficulty would have made rote teaching of it patently ridiculous. In the lower socioeconomic areas, the greatest gains in musical sensitivity were attained by those who were enrolled in choral classes which emphasize music reading. This measured growth in musical sensitivity can only be attributed to the acquaintanceship with the literature which the ability to read music made possible.

Statement 5: Improvising, inventing fixed music without writing it down, inventing music and recording it on tape . . . should be cultivated from the earliest grades.

The use of Orff rhythmical and melodic improvisation was not fruitful in this experiment. In the one school (E) where these techniques were meticulously cultivated, classes showed a significant loss on the Test of Aesthetic Judgments in Music. It would appear that improvisation alone is not adequate to develop sensitivity to music at the seventh grade level.

The plan of using music talent tests--particularly those aptitude tests which had been validated upon teachers' estimates of their students' musicality--as an achievement test for this experiment was a daring venture.

In developing aptitude tests, test items have been selected in many cases precisely because they do not reflect immediate training in the classroom, thus supporting a belief that musical capacity is innate and is not effected by varying environmental influences including music education. In the final analysis, all talent tests are merely achievement tests which, by measuring musical behavior at one time or musical situation, make it possible to prognosticate behavior at another age or circumstance. The essence, of course, as in intelligence measurement, is the rate of learning that is evidenced. One might even define musical talent as a term describing human behavior from a specific point of view, namely, that of a musician. It is, in a broad sense, the ability to adjust to the demands of the medium.

In this study no attempt was made to assess "native ability," since one cannot measure it separated from environmental influences. On the other hand, individual differences and socioeconomic class differences in abilities to make aesthetic judgments are evidenced by the great spread of scores from one school to another. It was for this reason that a zero control sample was used. A base line of achievement level needed to be ascertained in order for any inferences to be drawn concerning the effect of the various modes of musical training upon test scores. The stability of the scores of this sample for students not receiving musical instruction in school during the period of the experiment, as contrasted with the growth in aesthetic sensitivity by the majority of the classes, shows that music education is moderately successful in achieving the goal of developing discriminatory listeners and that the Test of Aesthetic Judgments in Music is sensitive to changes--even those attained in a single semester.

There is some evidence that the Kyme test, like the Gordon Test of Musical Sensitivity, is not particularly suited for test and retest application. Some students tend to score lower on the test the second time it is given. This, of course, can be attributed to the length of the test and its lack of variety. Interest wanes as the test proceeds, and unless the student has been motivated, he actually approaches the second testing with reluctance. This was particularly noticeable in the zero control sample which had no commitment to music testing other than as a scientific experiment. Unfortunately, the reliability of the test is not so high as one would wish and shortening the test would likely have brought about a decrease in reliability.

A test always measures more and less than it purports to measure! The validity of the test, computed by correlating the test scores with the junior high school teachers' ratings of their students as to musicality, varied from .28 to .85 within the nine schools with an over-all correlation of .481 based upon 1,048 cases in the fall semester. Thus, the test is measuring somewhat imperfectly what it purports to measure. But it is measuring more than what it intends, also.

It is measuring the subjects' ability to attend to the musical stimulus over a rather long period of testing time. It is measuring socioeconomic class differences in taste and cultural expectancies, as is evidenced by the great differences in scores between schools. It certainly measures the subjects' commitment to music.

Within the framework of these shortcomings, the test was serviceable in evaluating the effectiveness of musical curricula in the junior high school. The biases which are expected in a typical experiment were somewhat negated in this research by the extensive sample. Moreover, the opportunity to replicate the experiment gave credence to the general findings.

In summary, music education, generally meaning performance in the junior high school, is somewhat successful in bringing about discriminating listeners. Music reading has proven to be a necessary adjunct to choral performance, because only through musical literacy can the students truly experience the quality and quantity of music that develop the skill required for making aesthetic judgments in music.

Music listening, even when taught by a master teacher and through visual and auditory media, is not totally effective at the junior high school level in developing musical sensitivity.

Finally, musical composition, taught as a basis for understanding the structures of music rather than as a mere skill, has considerable promise as a means of developing cognitive learnings in the music classes--for the practicing instrumental performer as well as for those whose exposure to music has been limited.

CONCLUSIONS AND IMPLICATIONS

Fifty years ago the overriding philosophy of public education in America was sameness. At the turn of the century, the National Education Association appointed the famous Committee of Ten to study the course and function of the high school under President Eliot of Harvard. He concluded that a good college preparatory course was just as beneficial for pupils who were not going to college as for those who were. In order to prevent any deviation from this course, the Committee declared, "every subject which is taught in a secondary school shall be taught in the same way and to the same extent to every pupil as long as he pursues it, no matter what the probable destination of the pupil may be, or at what point his education is to cease" (40).

In the years of this research the thinking of educators has taken an about face. Faced with the task of alleviating the educational errors of segregation, college entrance requirements, and the excesses of Deweyism, America has set about to educate all of her children in the ways individually appropriate. Music education has been a forerunner in this endeavor philosophically, though in practice the offering has been rather stereotyped.

This research has supported the notion that there are as yet untapped sources for growth in musicality which may have particular appeal to those designated as the culturally deprived, if for no other reason than that innovation assumes no cultural distinctions.

As in all curriculum choices, the music educator must beware of change for the sake of change. Though progress implies change, change does not necessarily imply progress. As in a saying attributed to Eugene O'Neil, "When it is not necessary to change it is necessary not to change." This advice might well be heeded by those who have sought to share the wonders of music through involvement in performance of music. Although few would deny that a student's musical horizon is indeed limited if all the music he knows is that which is at his own fingertips, the "immersion in depth," sought by the Yale Seminar is most likely to occur in direct proportion to the ego-involvement of the student in the music learning situation.

The implication of this discussion, supported by the research findings, is that in seeking out the varied avenues to musicality, performance of music must not be sacrificed. It is a prime means of developing musicality for the chosen few; i.e., those who are committed to music.

The second implication drawn from this research is that music education for the uncommitted need not be devoid of substantive learnings. The composition courses which make demands upon the student in terms of understanding the structure of the discipline and of cognitive learning as contrasted with the musical hypnotism of so-called "music appreciation" experiences were effective in producing discerning listeners to music. The challenge to produce a guided listening program both effective and appropriate to the age stands out as unfinished business implied by the research.

Probably the most significant implication issuing from this research may be drawn from the somewhat successful attempt to evaluate the intangible results of music education.

The direction suggested by constructing a Test of Aesthetic Judgments in Music, which in turn was empirically validated upon the music teachers' estimates of success in music, would appear equally appropriate for future endeavors to develop tools of measurement in this aspect of musicality for other grade levels. It is envisioned that such a Benet-like technique of determining what is the typical response of a given age or grade level, rather than what one may theoretically assume, should be learned, and it may provide a realistic measure of musical expectancy. Such a measure would, of course, be of service in predicting future success for the individual testee as well as providing an achievement test to evaluate specific classes and modes of musical education.

Finally, this pilot research has substantiated the belief that research in music education can be carried out as a joint project of several doctoral students. It is implied, thereby, that supported research does not stultify initiative, but may serve as a catalyst which brings about reactions not possible through the elements alone. The wider perspective produces a whole greater than the sum of its parts.

SUMMARY

The goal of this research was to develop a curriculum in music suitable for junior high school students that would have as its central concern the teaching for musicality through musical composition. It had as it origin certain recommendations of the Yale Seminar on Music Education which appeared suitable for field testing under feasible controls.

The primary goal of music education, the Yale seminar concluded, is to develop musicality. Musicality was defined as "the ability to express accurately through pitch and time the mental image of a musical idea. Conversely, it is the capacity to grasp in its completeness and detail a musical idea heard."

Musicality, the seminar reported, may be developed through performance, both vocal and instrumental, through guided listening and through creative endeavors--that is, musical composition. For this study a fifth mode was also explored--a course of study devoted to developing the skill of music reading, hopefully leading to an acquaintanceship with a widely representative repertory of musical literature.

Subjects for this investigation were drawn from nine junior high schools in the Oakland, Berkeley, and Richmond, California, public school systems. In these schools music is required of all students in either the seventh or eighth grade. It is common practice for the state-mandated foreign language course to alternate with music. It was possible, therefore, for one half of the students, those taking foreign language, to serve as a zero control for the experiment in the first semester and to afford the opportunity to replicate the experiment in the second semester. A total of 3,083 students participated in the experiment. Of these, 555 comprised the experimental classes devoted to musical composition, 405 were assigned to the guided listening curriculum, 737 elected to take chorus, and 645 participated in the orchestral program. In three schools there were 70 students in music classes which emphasized music reading, and 671 students who were not enrolled in music in the first semester served as the zero control sample. The population represented a cross section of urban schools, including racially segregated neighborhood schools as well as schools totally integrated.

The choruses and orchestras served as control samples in the area of performance and three discreet curricula representing the Listening Program, the Music Reading Program, and the Musical Composition Course of Study were introduced.

The Listening Program was comprised of 35 films and audio-tapes of the New York Philharmonic Young People's Concerts under Leonard Bernstein. In the second semester a curriculum in guided listening was introduced, which attempted to bring about the understanding of musical structure through analogous analysis of the allied arts.

The music reading program capitalized upon the historically interesting crutch of using shaped notes to identify the sol-fa syllables representing the pitch relationships required in reading music. The literature utilized was chosen to represent recognized composers of various historical periods.

The musical composition class took its direction from the educational experiments of Carl Orff, and, more particularly, of Zoltan Kodaly, whose good advice served as inspiration for this endeavor. It must be stressed, however, that the composition experiences were not limited to rhythmical improvisation and emphasis on the pentatonic mode which characterize these European educators' musical curricula, but indeed followed Orff's advice that "children should be introduced to music almost as the race has progressed." Beginning with primitive chants growing from the rhythm and melody of speech, the composition students experienced the history of music through melody, harmony, and simple musical forms almost as the story of music has unfolded. The primary purpose of this curriculum was not to train composers per se, but, through composition and analysis of masterworks, to bring about an understanding of the music.

The following hypothesis was tested: Aesthetic sensitivity in music is dependent upon the capacity to grasp in its completeness and detail a musical idea heard. Therefore, instruction in musical composition, implying knowledge of musical structure, design, balance, unity, and variety, will be reflected significantly in the scores on a test of aesthetic sensitivity in music of those seventh grade students who have been given instruction in musical composition when compared to students who have received instruction in instrumental or vocal music classes, to those who have received instruction limited to guided music listening or music reading, and, finally, to those in a zero control group who have received no school music instruction.

To test this hypothesis, and in order to be impartial in the evaluation of the several avenues through which musicality may be developed at the junior high school level, the definition of musicality was somewhat delimited. It was defined merely as the ability to *comprehend* a musical idea, in its entirety. The instrument of evaluation for the experiment was a test of aesthetic judgments in music which was eclectically derived from the several standardized music ability tests which also have employed tests of judgments of appropriateness in the use of harmony, rhythm, melody, form, and timbre in expressing coherent musical ideas. The *Wing Test of Musical Intelligence*, the *Gordon Musical Profile*, the *Hevner-Landsbury Tests of Musical Appreciation*, the *Kwalwasser-Dykema Test of Melodic Taste* and the *Kyme Test of Aesthetic Judgments in Music* were the primary sources for the test developed for this study.

These musical ability tests were serviceable as resources because they had been validated through correlations with teachers' estimates of success in music of their students.

The revised test of aesthetic judgments in music for this experiment was also validated upon teachers' ratings of the subjects as to musicality. Only those items which differentiated significantly between high and low achievers were retained for the test. The validity of the test, expressed as a correlation coefficient of test scores and teachers' ratings of these pupils, was .48. This correlation was obtained by using a rating scale of seven points and utilizing the scores of 1,048 students who represented a wide cultural spectrum. The reliability of the test was computed to be .81. In its final form the test is comprised of 65 items which take 55 minutes to administer. The test was standardized and norms were developed for students in grades four through nine, using 2,000 children in schools of California that had not participated in the experiment. Norms for the Aesthetic Judgments in Music Test reveal a growth gradient expected of ideal achievement tests:

Grade	N	Mean	Standard Deviation
Fourth	371	21.56	6.69
Fifth	384	23.06	7.30
Sixth	340	26.67	6.40
Seventh	229	30.05	8.67
Eighth	430	31.88	10.13
Ninth	270	34.16	10.47

A principal component factor analysis to cluster the items significant to aesthetic judgments in music was done. The factor analysis of the test items produced four clusters which accounted for 86 percent of the communality of the test scores. These factors are identified as sensitivity to melody, harmony, rhythm, and form.

From these analyses of the data it may be stated that the aesthetic judgments test has "construct validity" in that the items which purport to measure sensitivity to melody cluster with other items purporting to measure sensitivity to melody, and so on; moreover, the test is internally consistent. No item was included in the final test which did not differentiate between high and low achievers on the test at the 1 percent level.

The Test of Aesthetic Judgments in Music was administered as a pre-instruction and post-instruction measure to each of the samples in the nine junior high schools. While the results varied from school to school, they are summarized in the following table. The table shows the results of the analysis of covariance, comparing the total experimental sample with each of the total control samples. An F value of 3.84 is required for ∞ degrees of freedom to be significant at the 5 percent level.

The purpose of this research was twofold: (1) to test certain hypotheses presented by the Yale Seminar on Music Education, and (2) to develop a test of musicality. In review of the evidence, and under the

SUMMARY TABLE

Sample	N	Pre-Test Mean	Post-Test Mean	Adjusted Mean	Standard Error	F Value	Deg. of Freedom	Signif. of Dif.
Experimental	555	26.89	28.03	26.33	.20	54.47	1223	.01
Zero control	671	23.03	22.88	24.28	.18			
Experimental	555	26.89	28.03	26.78	.25	29.42	1289	.01
Choral	737	23.57	24.02	24.96	.21			
Experimental	555	26.89	28.03	28.74	.27	2.14	1187	Not sig.
Orchestral	645	28.76	28.80	28.78	.25			
Experimental	555	26.89	28.03	27.15	.22	11.78	957	.01
Listening	405	24.47	24.51	25.61	.62			
Experimental	555	26.89	28.03	27.89	.25	.02	622	Not sig.
Music reading	70	25.25	25.99	27.20	.30			

limitations of the evaluation utilized, the assumptions made by the Seminar may be evaluated. Here, for example, are two statements from the Seminar's report:

> Written composition is an important learning tool, a sure developer of musicality in students at all levels of talent and age.

The data do not support this hypothesis outright. Students taking courses in musical composition equaled or exceeded their peers in orchestra, choir, music reading and guided listening programs on tests of musical sensitivity in three of the five experimental comparisons.

In two schools, it was possible for students to enroll in both general music classes and performance classes concurrently. The highest scores on the Test of Aesthetic Judgments in Music were attained by those students who were in composition classes and orchestra at the same time.

> Improvising, inventing fixed music without writing it down, inventing music and recording it on tape . . . should be cultivated from the earliest grades.

The stress of rhythmical and melodic improvisation was not fruitful in this experiment. In the one school where these techniques were meticulously cultivated, classes showed a significant loss on the Test of Aesthetic Judgments in Music from pre-instruction to post-instruction testing. It would appear that improvisation alone is not adequate to develop sensitivity to music at the seventh grade level, as measured by the test.

It must be stated, however, that there is some evidence that the Test of Aesthetic Judgments in Music, as was found with other tests of musical sensitivity, is not particularly suited for test and retest application. Many students tend to score lower on the test the second time it is given. This, of course, can be attributed to the fatiguing length of the test and its lack of variety. It was observed that interest wanes as the test proceeds, and unless the urban, culturally different student has been highly motivated, he actually approaches the second testing with reluctance.

The data presented here show that performance, both instrumental and vocal, is a prime means of developing musicality at the junior high school level. The scores of 645 orchestral students in the experiment exceeded all other scores when mean scores were adjusted with covariates.

The experimental use of the shaped-note system, a crutch for overlearning solfeg, was indeed a rewarding experience in the lower socioeconomic area schools. Through this historically intriguing device, the musically illiterate children in the experiment were able to experience a quantity and quality of music whose difficulty would have made rote teaching of it patently ridiculous. In the lower socioeconomic areas, the greatest gains in musical sensitivity were attained by those who were enrolled in choral classes which emphasize music reading. This measured growth in musical sensitivity can only be attributed to the acquaintanceship with the literature which the ability to read music made possible.

The listening program was an unexpected disappointment in this research. During the first semester the listening program was comprised of 35 of the New York Philharmonic Young Peoples' Concerts presented on films and tapes. In four of the nine schools the listening control group actually regressed during the semester from the time of pre-instruction testing to post-instruction testing. It is probably fair to say that the Bernstein tapes were too sophisticated for the urban junior high school population, particularly of the sample described as culturally deprived.

In the second semester of the experiment, an alternate listening program was introduced into four of the schools. The course, generally called "Music as a Humanity," attempted to bring about cognitive learning in music through analysis of representative works from the allied arts, music, painting, poetry, sculpture, drama, and architecture. While this innovation was more successful, it would appear that passive learning in music is not so effective as modes of learning requiring commitment and ego involvement.

In summary, music education, generally meaning performance in the junior high school, is indeed successful in bringing about discriminating listeners. Music reading has proven to be a necessary adjunct to choral performance, because only through musical literacy can the students truly experience the quality and quantity of music that develop the skill required for making aesthetic judgments in music. Finally, evidence has been presented that musical composition, as an enhancement to the well-traveled routes toward developing basic musicality, has much to contribute. Musical composition could not logically be recommended to supplant musical performance as the keystone of American music education but thoughtful music educators may well wish to test its virtues in developing more discerning student musicians in our junior high schools.

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APPENDIXES

The materials in the following pages comprise exemplary lessons which were taped for use by the teachers carrying out the innovational curricula. Their inclusion in this report is not to be construed as representing all that was taught as musical composition, music reading, and guided listening. They represent a skeleton, however, that may give direction to anyone wishing to replicate the experiment under similar circumstances.

The appendixes are three in number:

Appendix A includes examples of the compositional activities.

Appendix B shows the materials used in teaching music reading and related basic musicianship.

Appendix C is comprised of the scripts of the tapes used in the guided listening program.

APPENDIX A

LESSONS IN MUSICAL COMPOSITION

RHYTHM

INTRODUCTION

Music is a "temporal" art! It exists in time. The beauty of painting, sculpture, and architecture can be sensed in a single moment. The viewer literally sees the work in its entirety, instantly. But in music it takes time for the art to unfold, to be comprehended. It exists in time. The immediate attention of the listener must move as the music moves.

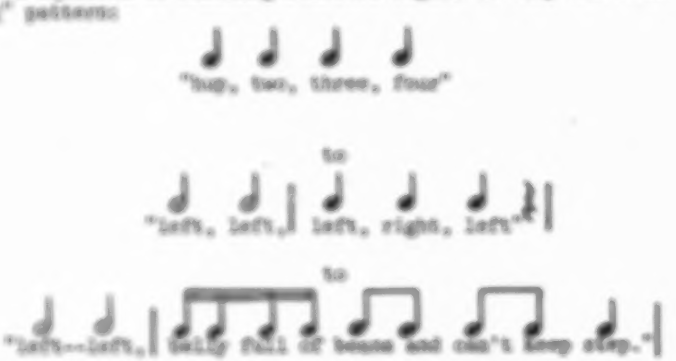
Music, like dancing, moves through time. We can never hear the whole shape of a tune at once, or see the whole pattern of a dance in a single moment. But when a tune or a dance is over, we find that we still hold in our minds some of the patterns which we have been following note by note or step by step.

The time element in music is usually described as the rhythm in music. The word actually comes from the Greek word "rhythmos" which means "measured movement" or "flow". As in poetry, it was commonly defined as the regular reoccurrence of an initial pulse or beat.

Man, two-legged creature that he is, senses the rhythm in music through a symmetrical, regular reoccurrence of strong beats and weak beats just as his body responds automatically to the regularity of falling and recovery in walking, inhaling and exhaling in breathing--for every action an opposite reaction.

However, there is something missing in this definition of rhythm which insists upon "regular reoccurrence" as the essential ingredient. Literally, there is no "forward movement," or "onward flow," which is essential to its completeness. Rhythm requires some grouping of the time elements in music which carry the mind onward to the end.

A squadron of marching soldiers begins to vary the count or "reoccurring" pattern:


"hup, two, three, four"
to
"left, left, left, right, left"
to
"Left--left, belly full of beans and can't keep step."

The patterning of time causes music to move. It is much more compelling than a single word, "hup, hup," no matter how regularly it occurs.

Rhythm, the first essential ingredient in music, is probably the first thing we notice in musical sounds that causes us to remember and enjoy them.

Rhythm is the secret to enjoyment of children's chantings:

Briar, briar, limberlock
Three geese in a flock,
One flew east and one flew west,
One flew over the cuckoo's nest.

It is the control element in jumping rope games:

Down by the ocean,
Down by the sea,
Johnny broke a bottle
And blamed it on me.
I told Ma, Ma told Pa.
Johnny got a whipping
So ha, ha, ha.

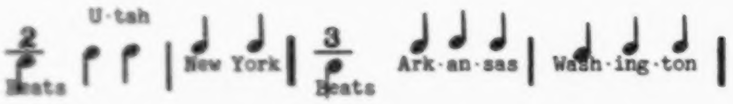
Rhythm makes learning and memorization easier:

ab cd ef g,
hi jk lmno p.

It leads the mind onward; it keeps ideas from bogging down. In music, rhythm acts as a carrying compartment for the sounds which give mere pitches design, form, and meaning.

When we listen to a piece of music such as a dance or march, we are tempted to tap our feet or move in some way, thus keeping time with the music. We feel the beat or time unit physically. If we observe carefully, we note that our tapping or moving is regular, like the ticking of a clock. The steady pulsation which we feel in music is called the underlying beat, and this beat marks off the unit of time which forms the basis of rhythm.

Rhythmic feeling is the tendency to group beats in music into short patterns or units which are marked off from each other by an accent at the beginning of each group. In music these groups are set off by vertical bar lines, and the space between the bar lines is called a measure. The beats within the measures may be counted in multiples of two basic combinations: in groups of two or of three beats.



It is also possible to group words and beats in music in groups of three. Here the strongest emphasis is felt on the first unit, less on the second, and least on the third. All other unit groupings are combinations of these two and three units.

At the beginning of the first bar of a piece of music, a symbol called a meter-signature shows how its units are to be counted. This symbol is in form of a fraction. The numerator shows how many units the measure contains, and the denominator shows the kind of units:

Examples of denominators: 2, a half-note

4, a quarter-note

8, an eighth-note

Thus, the "fraction" 3/4 means that each measure, or bar, contains three quarter-notes or their equivalents.

Written notes of any length can then be placed high or low, in various definite positions, to represent all the different levels of pitch that may be needed in tunes or musical compositions.

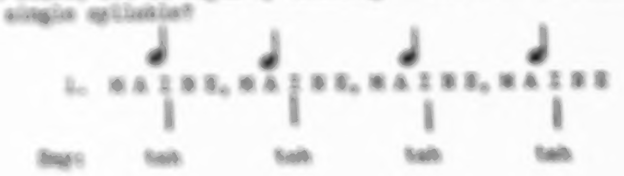
Movement in music requires the listener to have a good memory for what has gone on before in order to relate it to what is presently being heard. Moreover, he needs the ability to organize the patterns of movement into relationships for better understanding. Composers help in this process by the repetition of lines and, importantly, by organizing these musical ideas into forms--a sort of road map to help the listener get from the beginning to the end without losing his way in the maze of sound.

RHYTHM AS A BASIS FOR BEGINNING COMPOSITION

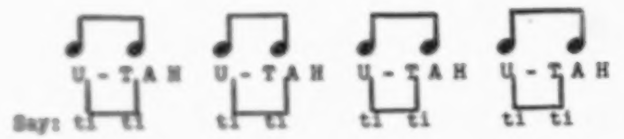
In the creation of music, our starting point should be rhythm. Rightly regarded, it is the most basic of all the elements. It will be introduced through speech patterns. For the young composer--as it was for primitive man--singing and speech, music and movement are parts of an indivisible whole. It is from speech patterns that rhythm evolves; and rhythm, in turn, suggests melody. Speech patterns make it possible for a person listening to music to group many types of meter without difficulty--even "up-beats" and irregular measures. Speech rhythms will be reproduced by clapping, stamping, body slapping, and, later, by playing percussion instruments which provide accompaniment.

In the beginning we will recite, clap, stamp and sing. We will learn to reproduce rhythms on instruments. Working in groups we will experience from the very beginning the contrast of solo and chorus, of melody and accompaniment. These parts of the music--accompaniment and melody--provide rhythmical variety as well as melodic interest.

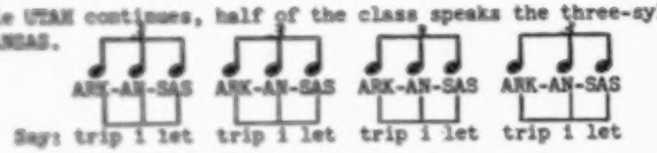
From rhythm and melody we shall move to equally essential experiences in form and improvisation. Rhythmical and melodic phrases introduced by the teacher are to be continued in a logical "form" by each student in turn. To start, let us begin by thinking of the name of states. Which state has a single syllable?



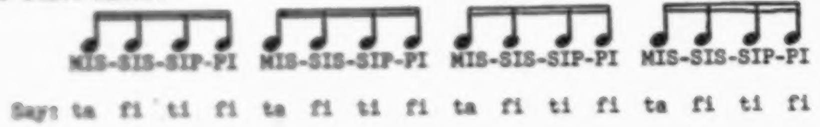
Now think of a state whose name has two syllables.


U - T A H U - T A H U - T A H U - T A H
Say: ti ti ti ti ti ti ti ti

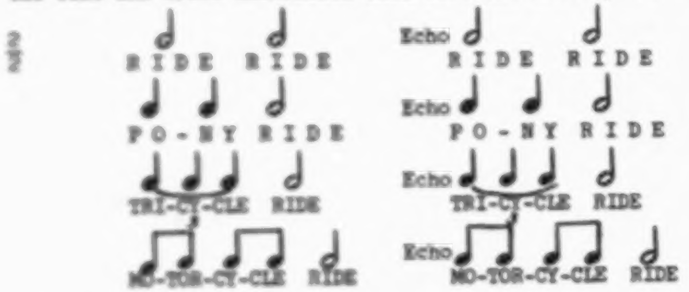
While UTAH continues, half of the class speaks the three-syllable name, ARKANSAS.


ARK-AN-SAS ARK-AN-SAS ARK-AN-SAS ARK-AN-SAS
Say: trip i let trip i let trip i let trip i let

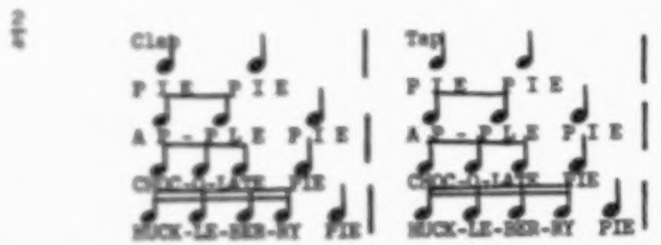
As we add MISSISSIPPI, a four-syllable name, compare it to each of the other state names.


MIS-SIS-SIP-PI MIS-SIS-SIP-PI MIS-SIS-SIP-PI MIS-SIS-SIP-PI
Say: ta fi ti fi ta fi ti fi ta fi ti fi ta fi ti fi

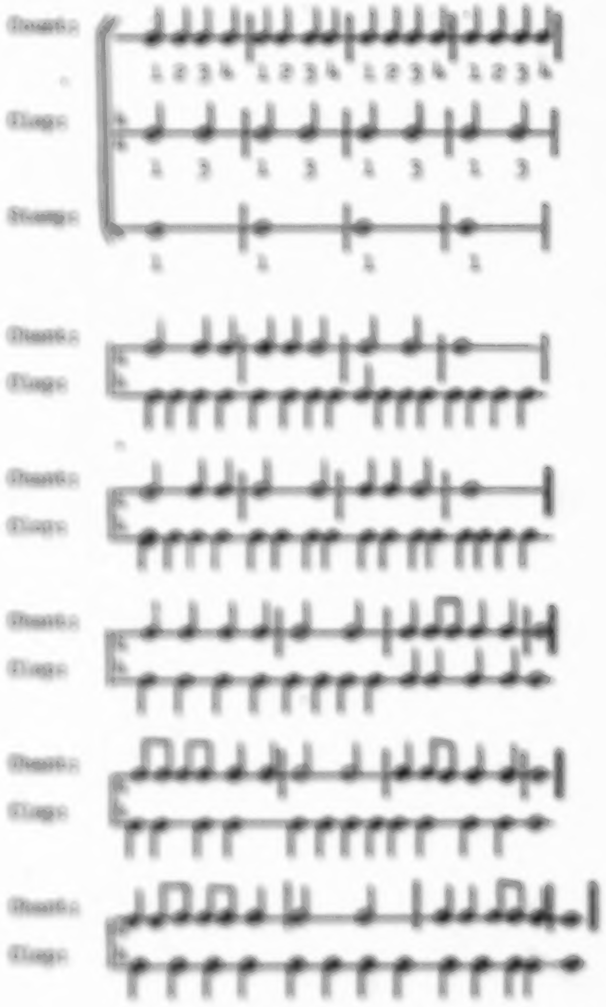
Here are some words which combine the note values we have practiced. Clap the echo and write underneath each word the note symbol for each syllable.



Clap the first measure or antecedent, and tap the consequent.



You have learned that if the symbol for one beat is a quarter note (♩), a half note (𝅗𝅥) is held for two beats.

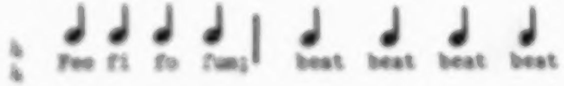


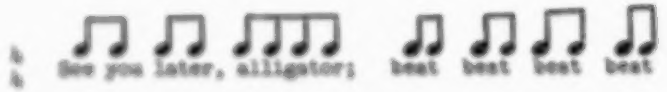
By now you undoubtedly recognize that music consists of groups of tones of different strengths and that there are two basic arrangements, the duple and the triple. In the duple meter the strong beat is followed by a weak beat, as in marching: left, right. In the triple meter the strong beat is followed by two weak beats, as in the waltz: slide, slide. Most of you have an instinctive feeling for rhythmical speech, as demonstrated in the jumping rope games. These may be rather complex rhythmically for in each jumping rope game there may be a countless number of rhymes. Do you remember this one? "Down by the ocean, down by the sea...", chant the words in sequence. Repeat the pattern several times as a complete phrase. Now repeat the pattern, tapping each syllable. Repeat it, adding slapping on the knee on the strong beats and clapping on the weak beats. As a variety, try to develop the same text in triple meter and perform it in a similar manner.

If instruments are available, transfer these rhythms to instruments. The drum would replace the stamping, and the woodblock could replace the clap.

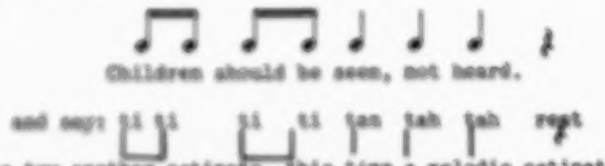
THE DEVELOPMENT OF OSTINATI FROM SPEECH

After we have practiced speech patterns and have added some simple movements such as clapping and stamping, and have transferred these rhythms to instruments, musical notation should be introduced. There are many ways of teaching simple rhythms, but the easiest way is through speech, beginning with quarter notes, which are going to be the basic subdivision of 4/4 meter. Here are some examples.





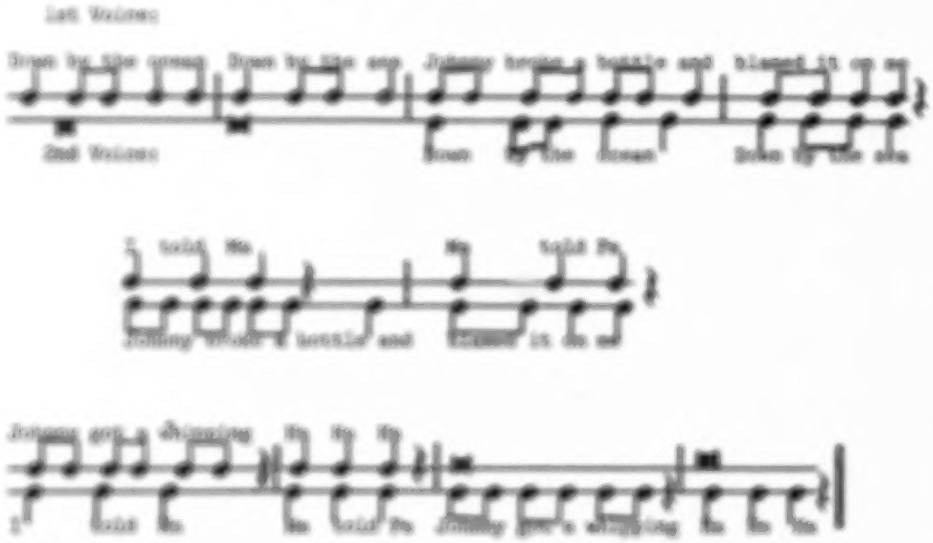
Try to clap this proverb:


Children should be seen, not heard.
and say: ti ti ti ti tah tah tah rest

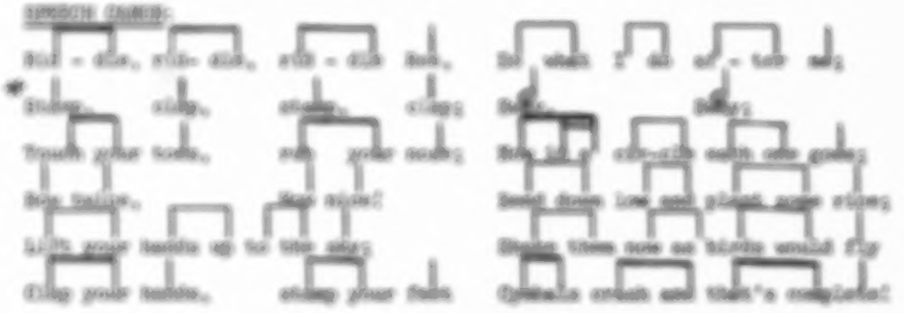
Let us try another ostinato, this time a melodic ostinato. The simplest ostinato will be do re mi so. do re mi so.

Other ostinato patterns may be invented; however, in the early stage you must guard against providing too many rhythms as ostinati or you will become less secure in your basic feeling for rhythm and melody.

The second of your experiences with rhythm will be the use of a rhythmic canon. The canon, which is a polyphonic composition of simple imitation, may be derived from speech patterns. It is good to start with speech alone, because it is uncomplicated with melody or harmony and you may readily grasp the basic idea. When preparing speech canons, begin with a simple example, such as this jump rope chant:


1st Voice:
Down by the ocean, Down by the sea, Johnny broke a bottle and blamed it on me.
2nd Voice:
Down by the ocean Down by the sea
I told Ma, Ma told Pa,
Johnny broke a bottle and blamed it on me
Johnny got a whipping Ha ha ha
I told Ma, Ma told Pa, Johnny got a whipping Ha ha ha

SPEECH CANON:


Touch your toes,
Lift your hands up to the sky;
Shake them now as birds would fly
Clap your hands,
stamp your feet
Cymbals crash and that's complete!

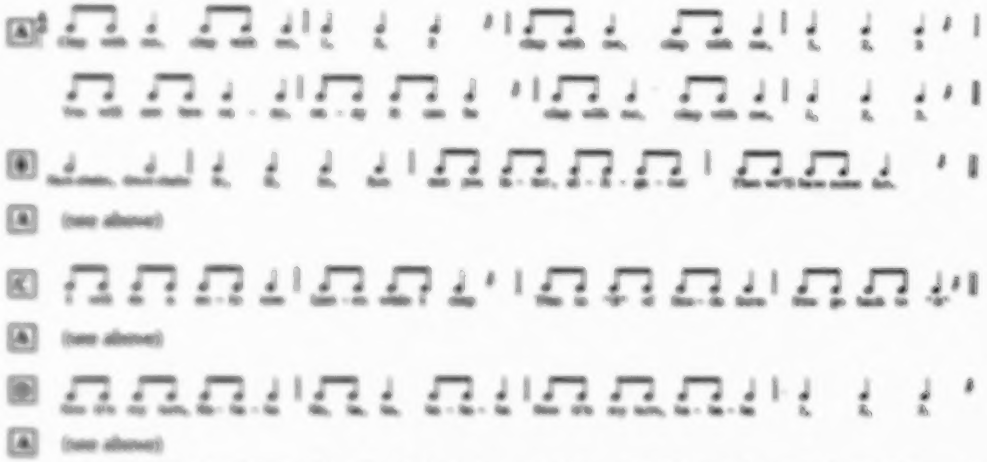
To this canon or a small section of the canon may be added some of the accompaniment ostinati which were suggested in the preceding section: (stamp, clap, stamp, clap; sway, sway)

After the rhythmic canon we should proceed to the rhythmic rondo. In order to prepare for the rondo, we begin with echo clapping. Make the motive as simple as possible, beginning with one bar at a time so that there is no chance for anyone to forget. The one-measure echo pattern then can be increased gradually until we can produce a two-bar and four-bar phrase. We shall use quarter notes and eighth notes only and we shall begin on the first beat of the measure for clarity's sake.

Echo clapping leads to rhythmic phrase building! This is the first step towards improvisation. From the security which we have gained through echo clapping we now may move from pure imitation to invention. Each individual will have the opportunity of completing a two-bar phrase.

Finally we are ready for the rhythmic rondo. The essence of the rondo of course is the reoccurring refrain, or A section, with episodes inbetween.

FIRST RONDO



Note: If words are used for clapping in the A section, the learning is much faster. Afterwards they can be omitted.

The "A" sections are clapped by entire class: B, C, D sections are only samples of solo parts—(not to be taught) B.C. & D are intended for improvisation by individual students—"on the spot" clapping of rhythmic-melodies or lines. Teacher will conduct the solo parts to help students grasp phrase length and number of bars. In this rondo the solo parts are 4 bars instead of 8 bars of the "A" section. As skills develop with understanding, 8 bars can be improvised, too.

Appreciation is expressed to Grace Nash (38) for this rondo.

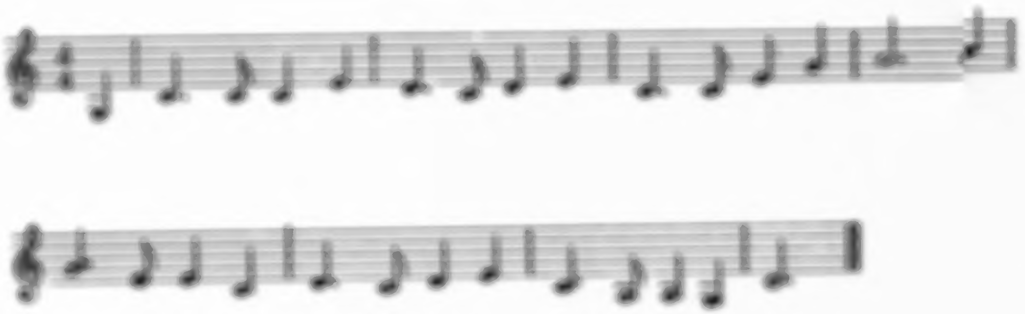
RHYTHM AS A BASIS FOR MELODY WRITING

With few exceptions, all music throughout history has melody. Melody is one of the most natural elements to remember in a composition. The process of composing a melody is much like that of writing a sentence in verbal language. In language, a writer must combine alphabetical letters into words, words into phrases, and phrases into sentences. Just as each word conveys a verbal idea, so does each sentence. The idea conveyed by a sentence, however, is much larger in scope than that of its smaller parts. In the same way, a composer must combine smaller musical ideas in order to construct a larger idea--a melody.

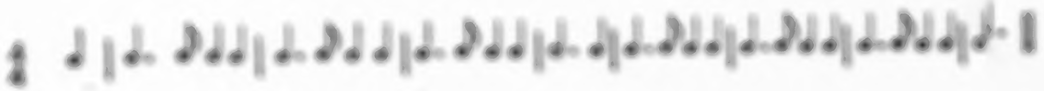
The smallest complete idea in music is called a motive. A motive is simply a pattern or design that is repeated in some way. Without repetition you would be unable to identify a motive as a pattern. There are two types of motives to be found in melody: (a) rhythmic motives and (b) pitch motives. This lesson will be concerned only with rhythmic motives and their development in a melody. Later on you will study pitch motives in melody.

First you will attempt to locate the rhythmic motives in a familiar folk melody; for example, take the first part of Auld Lang Syne. While you listen to the melody, follow the music to discover a rhythmic pattern of three or four notes that is repeated somewhere in the melody.

Auld Lang Syne

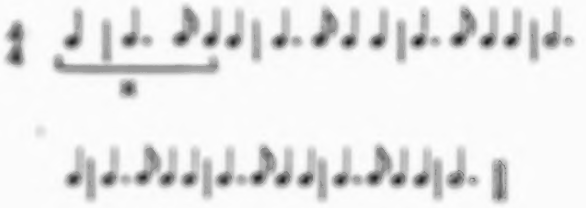


You will make the task easier by separating the rhythms from the pitches in the melody. Listen again and follow the rhythmic structure only:



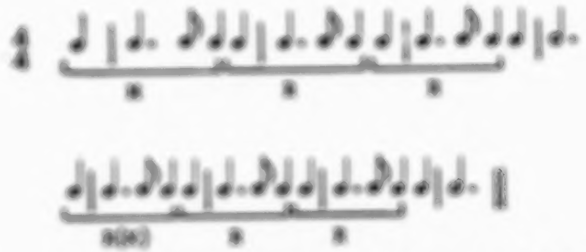
The most predominate rhythmic pattern in this melody is heard in the very first measure and consists of only four notes. In order to remember this motive, mark it with a bracket and label it as motive "M."

Main Motive of Auld Lang Syne

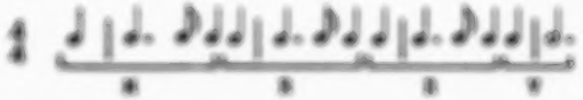


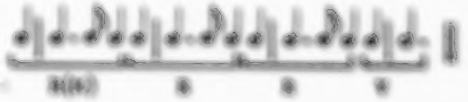
Notice that motive "M" is repeated six times. Bracket these repeated motives and label them with the letter "R" (for repetition).

Repetitions of the Main Motive



You now have some left-over notes which must be identified as related or not related to the main motive "M." In measures 3, 4, 7 and 8, for instance, notice that the quarter-note pick-up has been retained from the main motive but the dotted half-note is new. In addition, the basic durational shape of four quarter-notes has been retained. Because some aspect of these notes can be traced back to the main motive, you can still identify them as a kind of repetition. But the repetition has been varied somewhat; therefore, bracket these notes and label them with the letter "V" (for variation), as in this example:

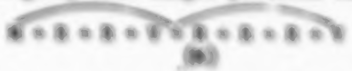




It is now evident that the entire melody of Auld Lang Syne is constructed of a main motive "M" which is repeated in some way throughout. The development of the main motive can be described in the following manner:

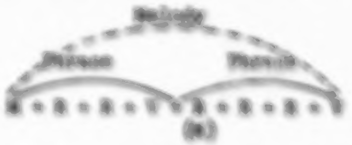
M - R - R - V - R - R - R - V
(M)

The melody may be further described by showing that the development of the main motive tends to group into larger patterns called phrases:



Since the second phrase roughly repeats the pattern of the first phrase, they are called "statement-answer" phrases.

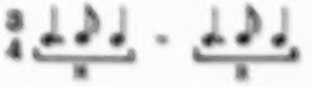
You can now describe the entire melody on three levels of development from the smallest idea or pattern to the largest.



Most melodies can be broken down into their phrase and motive structures by following the same process used in analyzing Auld Lang Syne. All melodies, however, are not always so clearly constructed. It is essential, therefore, that one understand some of the techniques used by composers to develop rhythmic motives. Some techniques are presented below:

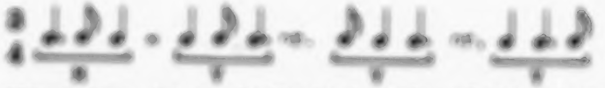
Rhythmic motives may be developed by:

(a) Repetition: The main motive is repeated exactly as in the following example:

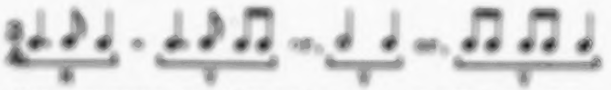


(b) Variation: The main motive is repeated but not exactly. Although some note values may be changed, an essential characteristic of the main motive must be retained. There are three ways to vary (change or alter) a main motive:

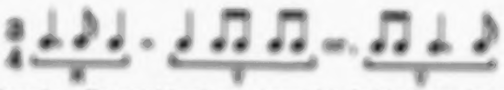
(1) Rearrangement: to reorder the note values of the main motive:



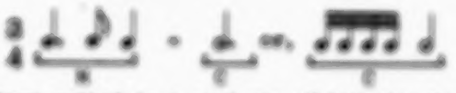
(2) Alteration: to retain the basic order of the main motive but at the same time change one or two of the lesser note values by addition or subtraction:



(3) Rearrangement and Alteration: to reorder and change one or two of the note values of the main motive:



(c) Contrast: By contrast we mean to introduce into a rhythmic structure an entirely new motive that is not related to the main motive. The following is an example:



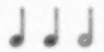
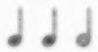
The worksheet method is a good way of learning how to develop a rhythmic motive. First, make four columns on a piece of paper and label them in the following manner:

Motive (M)	Repetition (R)	Variation (V)	Contrast (C)

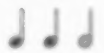
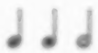
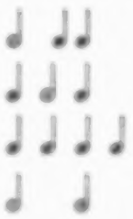
Next, either invent a one-measure motive in 3/4 or 4/4 meter or borrow one from a musical composition. Enter in the column marked "Motive."

Motive (M)	Repetition (R)	Variation (V)	Contrast (C)
♩ ♩ ♩			

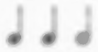
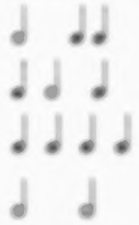
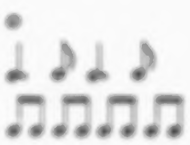
Write the exact repetition of the main motive in the "Repetition" column.

Motive (M)	Repetition (R)	Variation (V)	Contrast (C)
			

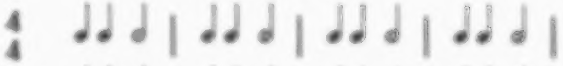
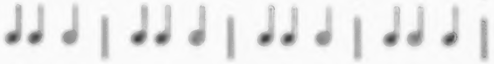
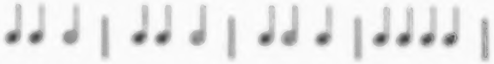
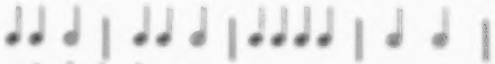
Now comes the real task. You must think of as many variations as you can invent and place them in the column marked "Variation." Remember, there are three techniques for varying a motive: by rearrangement, by alteration, and by rearrangement and alteration; however, you must always retain some part of the main motive in order for it to qualify as a variation. The following are some possible variations of the main motive:

Motive (M)	Repetition (R)	Variation (V)	Contrast (C)
			

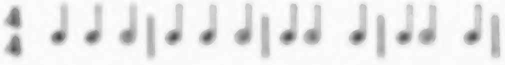
Finally, a contrasting (new) motive or two may be introduced into the "Contrast" column of your worksheet.

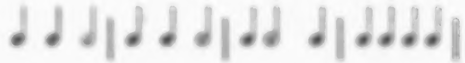
Motive (M)	Repetition (R)	Variation (V)	Contrast (C)
			

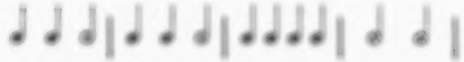
You now have a worksheet from which you may draw ideas for constructing your own phrases. First design a simple four-measure "statement" phrase by using the letter abbreviations from each of your four worksheet columns. The simplest design would be like the one used in Auld Lang Syne: one measure of a main motive (M) and three measures of repetition (R). This is shown below in addition to some other possible designs:

Design		Realization
1. M|R|R|R|	=	
2. M|R|R|V|	=	
3. M|R|V|V|	=	
4. M|R|V|C|	=	

Now choose the third design -- M|R|V|V|-- and change the letter abbreviations into note values. To do this merely revert back to your worksheet. Since measures three and four of your design both use a variation, you must decide which variation will be most appropriate and whether the same variation should be used in both measures. Here are some of the ways this design could be written:



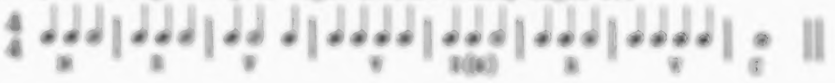




If you now let M|R|V|V| stand for a "statement" phrase and then design a four-measure "answer" phrase to follow it, you will have a rhythmic design for a complete eight-measure melody. To do this, you must design the "answer" phrase so that it is some kind of a repetition of the "statement" phrase. The simplest repetition would be an exact repetition of the "statement"; however, you could also vary it. Below are some possible designs for an "answer" phrase beginning with an exact repetition and becoming more varied.

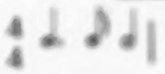
1. R(M)|R|V|V|
2. R|R|V|C|
3. R|R|C|V|
4. R|V|R|C|

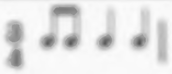
Thus, one design for your eight-measure melody might be:

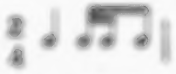


Based on the previous discussion of rhythmic concepts, develop your own rhythmic structure for a proposed eight-measure melody. You may use one of the rhythmic motives given below or invent your own motive.

Rhythmic Motives for a Proposed Melody

(a) 

(b) 

(c) 

One method teachers use to insure that each student will be able to hear and perform what he designs is to have students clap sample designs from a model worksheet placed on the blackboard. For instance, using the worksheet presented earlier and the phrase design, a | a | a' | b |, four students could be asked to stand and represent one measure each of the design. Using the worksheet as a reference, the first student claps the main motive, the second student claps the repetition, the third student claps an appropriate variation, and the fourth student claps an appropriate contrast. Under the direction of the teacher, the four students then perform each of their parts in tempo. At the conclusion of the performance, the class may discuss the appropriateness of the variation and contrast measures in terms of the entire phrase design.

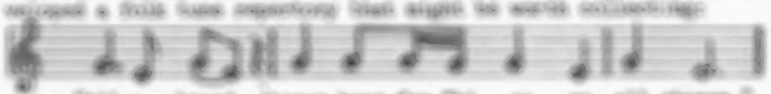
MELODY

Melody has rightfully been called the surface of music, not merely because it is the top part, but more because it is the surface that catches the ear as the surface of an object catches the eye. Melody without harmony is like painting without perspective, and just as the element of perspective was introduced into the art of painting late in its history, so did harmony enter the art of music later in history. Unaccompanied melody was the only music everywhere until comparatively recent times. Classical Chinese music still uses no harmony at all. Harmony, then, is not a necessity to musical art, but melody is.

Melody probably originated in natural inflections of speech for all speech possesses the constituents of melody: (1) pitch variation; and (2) rhythm. Anyone speaking a phrase speaks some syllables on a higher note and some on a lower note. Some, for instance, are spoken more loudly and some more softly, some more caressingly and some more curtly. Take, for example, these three: (1) (I think I might have stepped on your toe.) "I beg your pardon"; (2) (I didn't hear what you said.) "I beg your pardon"; (3) (I don't agree with you at all, you fool!) "I beg your pardon".

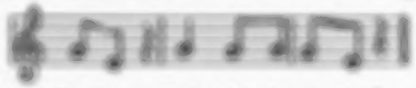
The tunes to which we perform our daily tasks vary a great deal according to the state from which we come. The cowboy's speech intonation and rhythm differ from the southerner. The clipped New England speech differs from the Bronx. They all differ from one another. Spanish language has an intonation of a falling perfect fourth. In the Chinese language the meaning of the individual words is so affected by the intonation that foreigners have difficulty in learning the language unless they possess a fine musical ear and retentive memory. Melody in China has become very definitely attached to meaning.

Any person compelled to repeat the same phrase many times daily inevitably sets it to a distinct melody which could be recorded in musical notation. Thus, the railroad porters who pass through stations have developed a folk tune repertory that might be worth collecting:

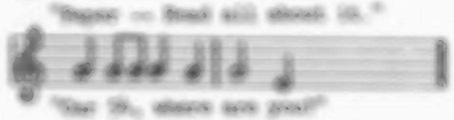


"All a - board, change here for Chi - ca - go, all change."

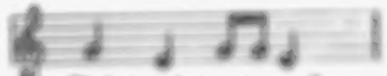
The traditional fragmentary melodies of itinerant vendors have attractive thematic material of which composers have made use since the 18th century. Here are some of our familiar chants heard on the playground or on the streets:



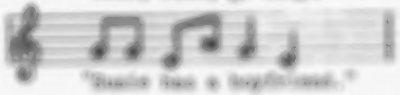
"Paper -- Read all about it."



"Yoo Hoo, where are you?"



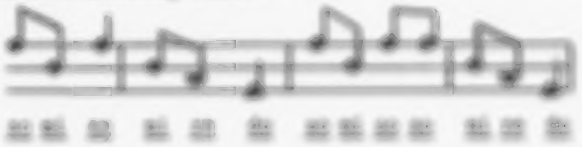
"Rain, rain, go away."



"Susie has a boyfriend."

The melodies of primitive people are often mere alternation of two short motives, each of them has a unit equivalent to one of the jeering cries just illustrated. Frequently one is sung two or three times and then followed by the other. Some birds have developed their repertory in this way. Simple as such music may be, it embodies the principle of economy of material. Almost any good melody will be found to consist of an exploitation of some brief motive.

Hopi Indian Corn-Grinding Chant:



SETTING WORDS TO MUSIC

It should be clear by now that in setting words to music we must somehow bring out their natural inflections if we want them to be understood. We can do this by making the accented syllables fall on the strong beats of the music, and by making the weak syllables fall on the weak beats of the music.

The first beat of the measure in any musical meter receives accent or stress so that any syllable which is sung on the first beat will share in this stress. We would be careful to place the syllable "com" of "coming" on such a strong beat, such as the beat after the bar-line, and the weak syllable, "ming" on the following weak beat.

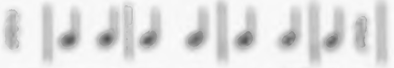
Let us take a line of poetry and, noting the poetic meter, place bar lines so that strong syllables come on strong beats.

|Polly|put the|kettle|on

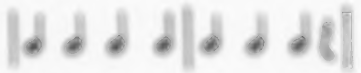
According to the effect we want to create, we can choose meters and rhythms with almost infinite flexibility, provided that the bar lines do not occur in any of the positions shown on the slide.

Say these after me:

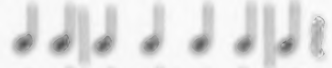
Pol-ly put the ket-tle on.

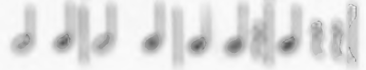
(1) 

We can leave out some bar lines to create 4/4, but notice that the word "put" still falls on the relatively strong third beat:

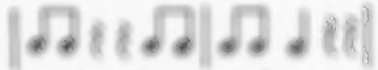
(2) 

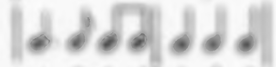
Here is another 4/4 setting emphasizing the word "put" instead of the word "Polly."

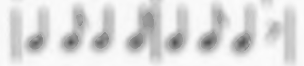
(3) 

(4) 

In this one, the word "put" falls on the weak 4th beat, but is still on a stronger beat than the word "the," which is on beat "4½."

(5) 

(6) 

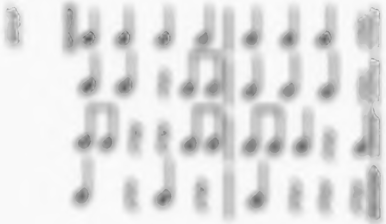
(7) 

There are literally hundreds of other possibilities. See if you can make a rhythmic setting of the whole poem.

Polly put the kettle on,
Polly put the kettle on,
Polly put the kettle on,
We'll all have tea.

Select one time signature for the whole poem. Then try to find slightly different rhythms for each line, but remember that the four lines must fit together in a natural manner.

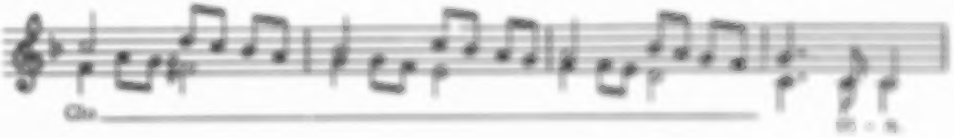
Here is a setting in 4/4, in which the rhythms become more urgent, more insistent, from one line to the next.



Musical fashions vary from one century or decade to the next as widely as clothing fashions. The music written at the time when men wore wigs is as different from the music of today as the hoop skirt is from the mini-skirt. Fashions in setting words to music have varied between two extremes: the one where the words are held to be the most important element and the music's purpose is to express their meaning as fully and evocatively as possible; the other where the words are merely incidental and the music must be allowed to go its own way, completely unimpeded by the poem.

Examples:

a



For the purposes of this lesson, we are going to follow the fashion that holds that if one isn't going to try to bring out the meaning of the words, one shouldn't write a song at all, but should throw the words away and write a piece for the piano, or the clarinet, or the orchestra. You understand that this approach is not necessarily more valid than its opposite. But it's a good place to start. Our aim then is to write a song that brings out the meaning of the words even more clearly than if they were spoken.

The meaning of a sentence can change subtly according to the manner in which it is spoken--according, for example, to which words receive special emphasis.

(1) Polly put the kettle on.

You do it Polly. Don't complain that it's your sister's turn.

(2) Polly put the kettle on.

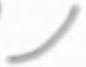
Here attention is being drawn to the action. This is a call for action now!

(3) Polly put the kettle on.

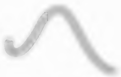
Don't put on the toaster or the frying pan or the oven--put on the kettle.

Let's make a side-track for a moment. Listen to this: (whistle ⁄). We could roughly represent this whistle by a curving line or graph.

(1)

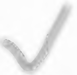


(2)



(Whistle for each.)

(3)



Now let's go back to the speaking voice. Listen as I say version (2) of our line:

Polly put the kettle on.

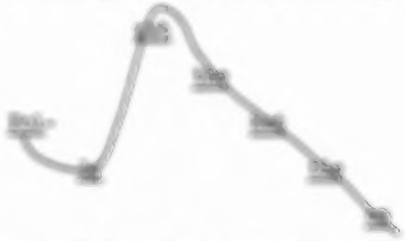
Listen carefully to each syllable and its pitch compared to the previous and following syllables.

Polly put the kettle on.

Let us mark these relative pitches roughly in this manner:

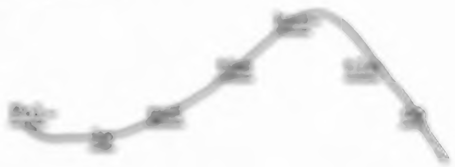
put
the
Pol- ket-
ly tle
on

Now we can join these pitches up with a curving line:



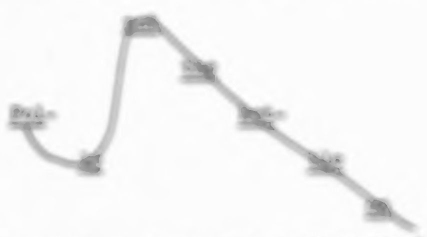
Notice that version (3) emphasizing the word "kettle" instead of the word "put" produces a completely different shape:

Polly put the kettle on.

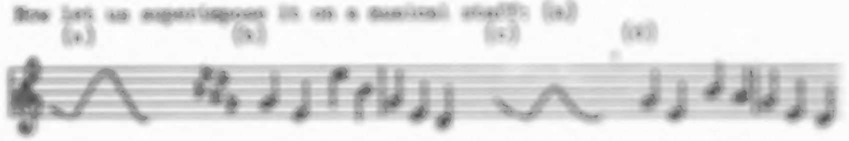


These lines represent the rise and fall of the voice as it seeks to convey a particular meaning of the words. Remember that our aim is to set these words to music in such a way that their meaning is clear to the audience. Perhaps one way to achieve this aim would be to create a melody which more or less follows the rise and fall of the speaking voice.

Let us take version (2) of "Polly" again:



Now let us superimpose it on a musical staff: (a)



By making a rough correspondence between the curve and the actual notes we want in the melody, we might come up with something like (b).

We could keep the shape of the curve but flatten it out a little (c) and so produce a melody with fewer leaps and a smaller range (d). This choice would depend on what sort of music we wanted to create, and also upon the rhythm that we use, and also upon whether a melody of leaps or a melody of steps would best bring out the meaning of the words.

Remember also that the curve is only a guide. We don't have to stick rigidly to the shape of the curve if our musical sense suggests better alternatives. But in departing from the curve we should be aware of detracting from the meaning of the words.

Let us make a setting for the whole poem. Just for fun, let us take all the three different ways of saying, "Polly put the kettle on" and arrange them in such an order as would suggest an increasingly irritated and exasperated mother instructing her daughter, Polly.

Polly put the kettle on.
Polly put the kettle on.
Polly put the kettle on.
We'll all have tea.

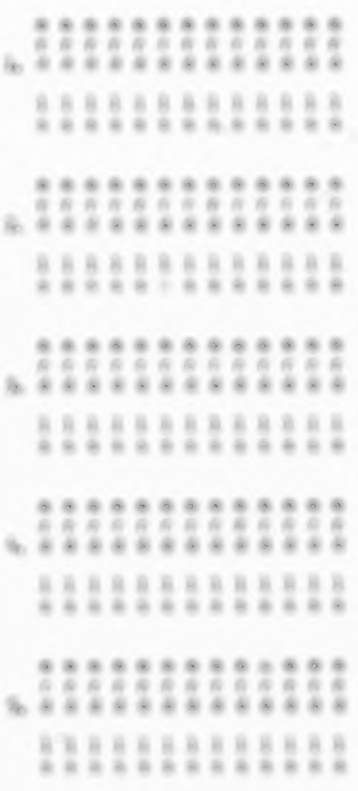
Because the mother is becoming more irritated as the song goes on, it would be logical to have the climax of the song somewhere towards the end. The word "kettle" is the most important word in the third line. Let us make it the climax for the whole song by, for example, setting the syllable "ket" (tle) on the highest note of the song. We can add to the strength of this note by placing it on the strong first beat of a measure.

Now that we have talked about the rhythm of the spoken words, and about the rise and fall of the speaking voice, we are ready to set about actually setting a song. Let us set the words of "Polly put the kettle on" to music.

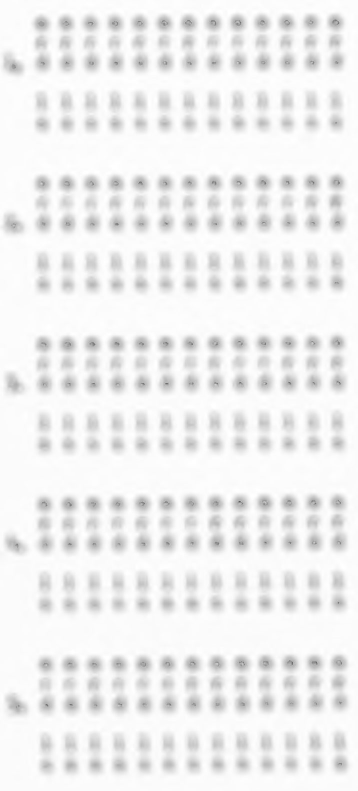
However, before we create our tune, we need to set the ground rules. Let us limit our first tune to five tones. Moreover, let's choose five special tones to use: the black keys of the piano.

In order to write our tune, "Polly, Put the Kettle On," we must be sure that we can correctly write the pitches that we hear in our mind. For this reason we should practice some melodic dictation.

Write – Sing



Write – Sing



MELODIC DICTATION

Using Pentatonic Melodies

The teacher will play the following melody twice on the piano. Listen the first time through to familiarize yourself with the tune. Then, starting with the first note which is already circled, circle the correct syllable to match the tones as they are being played the second time. Using syllables, sing the melodies together to check your work.

1. Rain, rain go a - way Come a-gain some oth-er day!

[✓ so]	so	so	so	so	so	so	so	so	so	so	so
mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi

2. My sis has a boy-friend! Ha! Ha!

la	la	la	la	la	la	la	la
[✓ so]	so	so	so	so	so	so	so
mi	mi	mi	mi	mi	mi	mi	mi

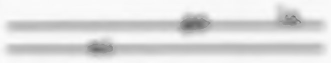
3. Bob-by Shaf-to's gone to sea, Sil-ver buck-les on his knee.

la	la	la	la	la	la	la	la	la	la	la	la	la	la
[✓ so]	so	so	so	so	so	so	so	so	so	so	so	so	so
mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi

4. Pol-ly put the ket-tle on Pol-ly put the ket-tle on.

la	la	la	la	la	la	la	la	la	la	la	la	la	la
[✓ so]	so	so	so	so	so	so	so	so	so	so	so	so	so
mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi
re	re	re	re	re	re	re	re	re	re	re	re	re	re
do	do	do	do	do	do	do	do	do	do	do	do	do	do

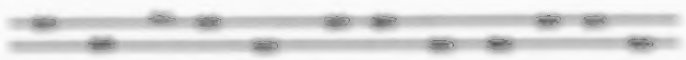
The tunes in examples 2 and 3 are comprised of three tones: mi, so and la. In addition to the steps listed above, these examples should also be notated on a two-line staff. The bottom line is mi, the top line is so. la will be placed in the space above the top line.



Use syllable names (mi, so, la) to indicate the pitch at this stage of practice.

Here is an example:

1.



Rain, rain go a - way Come a - gain some oth-er day!

2.

My sis has a boy-friend! Ha! Ha!

3.

Bob-by Shaf-to's gone to sea, Sil-ver buck-les on his knee

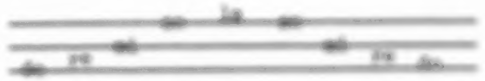
He'll come back and mar-ry me, Pret-ty Bob-by Shaf - to.

While the teacher plays, students will sing the pentatonic (five-toned or "gapped") scale, starting on do.

and back down again:

This example shows all five tones of the pentatonic scale. Do you think the first five notes of the tune are identical to this scale? Listen carefully as the teacher plays the melody. The *re* tone is skipped at first, isn't it? Circle the correct syllable as your teacher plays the melody for the second time.

In notating the melody you will need at least three lines to keep the notes apart:



4. The Camp-bells are com-ing Hur-rah, Hur-rah

la la la la la la la la la la
so so so so so so so so so so
mi mi mi mi mi mi mi mi mi mi
re re re re re re re re re re
[✓ do] do do do do do do do do do

The Camp-bells are com-ing Hur-rah, Hur-rah

5. I know a las-sie as fair as can be, And she lives where the bluebells grow

la la la la la la la la la la la la la la la la la la la
[✓ so] so so so so so so so so so so so so so so so so so so
mi mi mi mi mi mi mi mi mi mi mi mi mi mi mi mi mi mi mi
re re re re re re re re re re re re re re re re re re re
do do do do do do do do do do do do do do do do do do do

I know a las-sie as fair as can be, And she lives where the bluebells grow

6. Swing low sweet char-i- ot--- Com-ing for to car-ry me home

so so so so so so so so so so so so so so so so
[✓ mi] mi mi mi mi mi mi mi mi mi mi mi mi mi mi mi
re re re re re re re re re re re re re re re re
do do do do do do do do do do do do do do do do
la la la la la la la la la la la la la la la la
so so so so so so so so so so so so so so so so

Swing low sweet char-i - ot--- Com-ing for to car-ry me home

7. Sweet-est lit-tle fel-low, Ev'r- y bod-y knows.

so so so so so so so so so so so
mi mi mi mi mi mi mi mi mi mi mi
re re re re re re re re re re re
do do do do do do do do do do do
la la la la la la la la la la la
[✓ so] so so so so so so so so so so

Sweet-est lit-tle fel-low, Ev'r- y bod-y knows.

Don't know what to call him but he's might-y like a rose.

la la la la la la la la la la la la la
so so so so so so so so so so so so so
mi mi mi mi mi mi mi mi mi mi mi mi mi
re re re re re re re re re re re re re
do do do do do do do do do do do do do

Don't know what to call him but he's might-y like a rose.

8. Old Mc Don ald had a farm, Ee- i, Ee-i, o !

mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi
re	re	re	re	re	re	re	re	re	re	re	re
do	do	do	do	do	do	do	do	do	do	do	do
la	la	la	la	la	la	la	la	la	la	la	la
so	so	so	so	so	so	so	so	so	so	so	so

9. Grind-ing corn, grind-ing corn, Ind-ian maid-ens grind-ing corn.

so	so	so	so	so	so	so	so	so	so	so	so	so
mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi
re	re	re	re	re	re	re	re	re	re	re	re	re
do	do	do	do	do	do	do	do	do	do	do	do	do

Gods of rain, sun, and sky, send the gen-tle but-ter-fly.

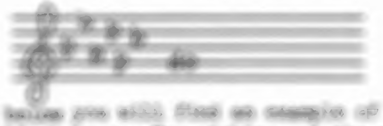
mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi
re	re	re	re	re	re	re	re	re	re	re	re	re
do	do	do	do	do	do	do	do	do	do	do	do	do
la	la	la	la	la	la	la	la	la	la	la	la	la
so	so	so	so	so	so	so	so	so	so	so	so	so

10. Trot, trot po-ny trot! Trot to grand-ma's gate-way

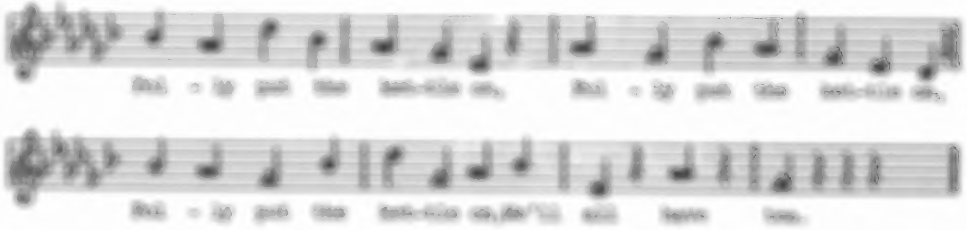
la	la	la	la	la	la	la	la	la	la	la
so	so	so	so	so	so	so	so	so	so	so
mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi
re	re	re	re	re	re	re	re	re	re	re
do	do	do	do	do	do	do	do	do	do	do
la	la	la	la	la	la	la	la	la	la	la

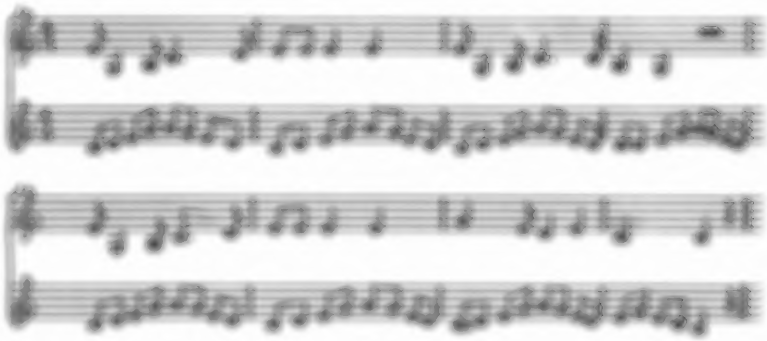
Most of our pentatonic melodies have too large a range to notate on a simplified staff. Even using the five-line staff the position of the tones are shifted either for ease of reading or for ease of singing.

If one uses the proper "key signature," pentatonic melodies may be written so that they will be played using just the black keys of the piano. For example, using this key signature, all pentatonic melodies may be played using just the black keys:



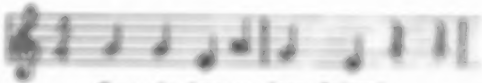
On looking below you will find an example of "Polly, Put the Kettle On," on the black keys. Try picking out the melody on the piano and sing it with sol-fa syllables.


Pol - ly put the ket-tle on, Pol - ly put the ket-tle on,
Pol - ly put the ket-tle on,we'll all have tea.

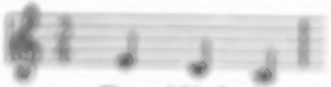


DEVELOPING A PENTATONIC MELODY FROM AN "OSTINATO MOTIVE"

The melodic ostinato figure which you used earlier as an accompaniment device may also give insight into the development of a melody from limited material. Here are two such ostinato figures as examples:

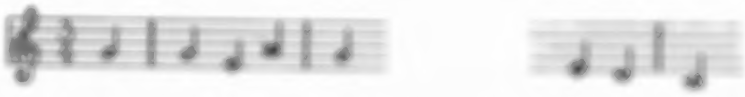


Su - sie has a boy-friend

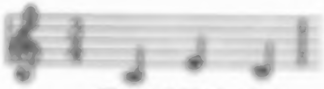


Three blind mice

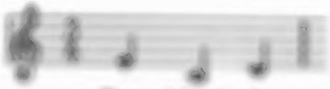
But the motives above are static! They don't move towards a goal. The problem now is to make this germ of a melody grow. First, adapt them to 3/4 meter.



Now, scramble the notes any way you wish in order to keep the music moving.

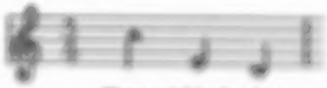


Three blind mice

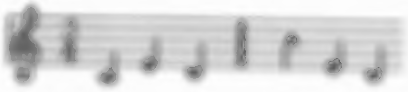


Three blind mice

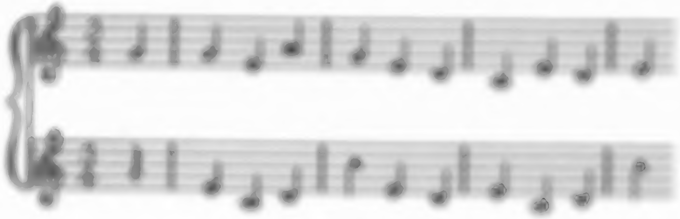
This motive ends abruptly, doesn't it? Try this arrangement to see if it makes the sound want to continue:



Three blind mice



Or try putting the last note (do) first and up an octave. Now combine the two in a two-measure ostinato.



Here is a report from the log of one of the teachers working in this project. It describes how this class created a Christmas song--extending the idea of using the pentatonic scale, ostinati and borduns.

First the children created the poem which was to serve as the lyrics for their first song. Of course the teacher recognized "something old, something new" in the words. The children were using old words in new ways as together they created this poem:

On the hills of Judea, on a cold wintry night,
To certain poor shepherds there came a great sight.
The heavens flew open, while angels did sing
Alleluia, Hosanna, hail the birth of our King.

These children had worked with an adaptation of the melodic dictation which was practiced earlier. They could identify the correct sol-fa syllables when the teacher played simple melodies on the piano, and they could notate the corresponding time values and were learning to put the notes on a three-line staff with C on the bottom line. The teacher had made her melodies conform to the five tones of the pentatonic scale, do, re, mi, sol, la, but added an occasional high do to increase the vividness of the melodic pattern if in the excitement of the music, this note was desired. The students could take rhythmic dictation, though limited to whole, half, quarter, and eighth notes. They were anxious to put these skills to use in an original song.

The first step in writing music for their song was to scan the poem and to put in measure bars just before each accented syllable. The students felt that the song moved with three beats to the measure. They also sensed that the tempo would be slow. "The mood should be calm and serene, so that the words would be understood." One boy thought a motion rocking back and forth and singing would depict the mood of the song. The teacher gave his three classmates bells to improvise an accompaniment figure which would demonstrate his idea. The notes were low do, sol, and high do. The effect of a rocking motion was so pleasing, the class accepted this ostinato figure, but since it went beyond the "writing range," the teacher agreed it could be used, but merely wrote sol-fa syllables on a flash card to "remember the melody for future use." She suggested, however, that it be played on the 'cello whose strings are tuned to C, G, D, and A. (Tuned by turning the D string a full tone sharp.) The notes were to be plucked. The teacher then carefully chose other resonator bells which she insisted should conform to the octave upon which was to design the song. One child took do, re, mi bars which she quickly inverted to mi, re, do. "This," she explained, "was to make the music want to keep going." She wrote it carefully on the cardboard flashcard with a flow pen. This was to be a motive in the song to be created. Another child chose do, la, sol, in that order, and the teacher suggested the pattern high do, low sol, la, to another child to serve as a "tail" for the first motive. The three were to take turns. The last pattern to be chosen was the falling minor third, the universal interval of childhood, sol-mi. The teacher thought that la would add interest to these two notes. What an interesting sound the motives made when played together! The resonator bells were quite appropriate for the background sounds which were to set the mood for the creation of a Christmas song.

As the third step, the children began to chant the words of the song on the pitch of G or sol. It was easy to put the time value notes underneath the words. They clapped eighth, eighth, quarter, quarter, quarter, quarter, etc. The children had not changed the words more than twice together when one creative child would not be content with the one tone melody and offered this substitution for the beginning tones. mi, mi, sol, mi, la, sol, mi. She pointed out that it came from the third motive which was sol, mi, la, sol, mi, la.

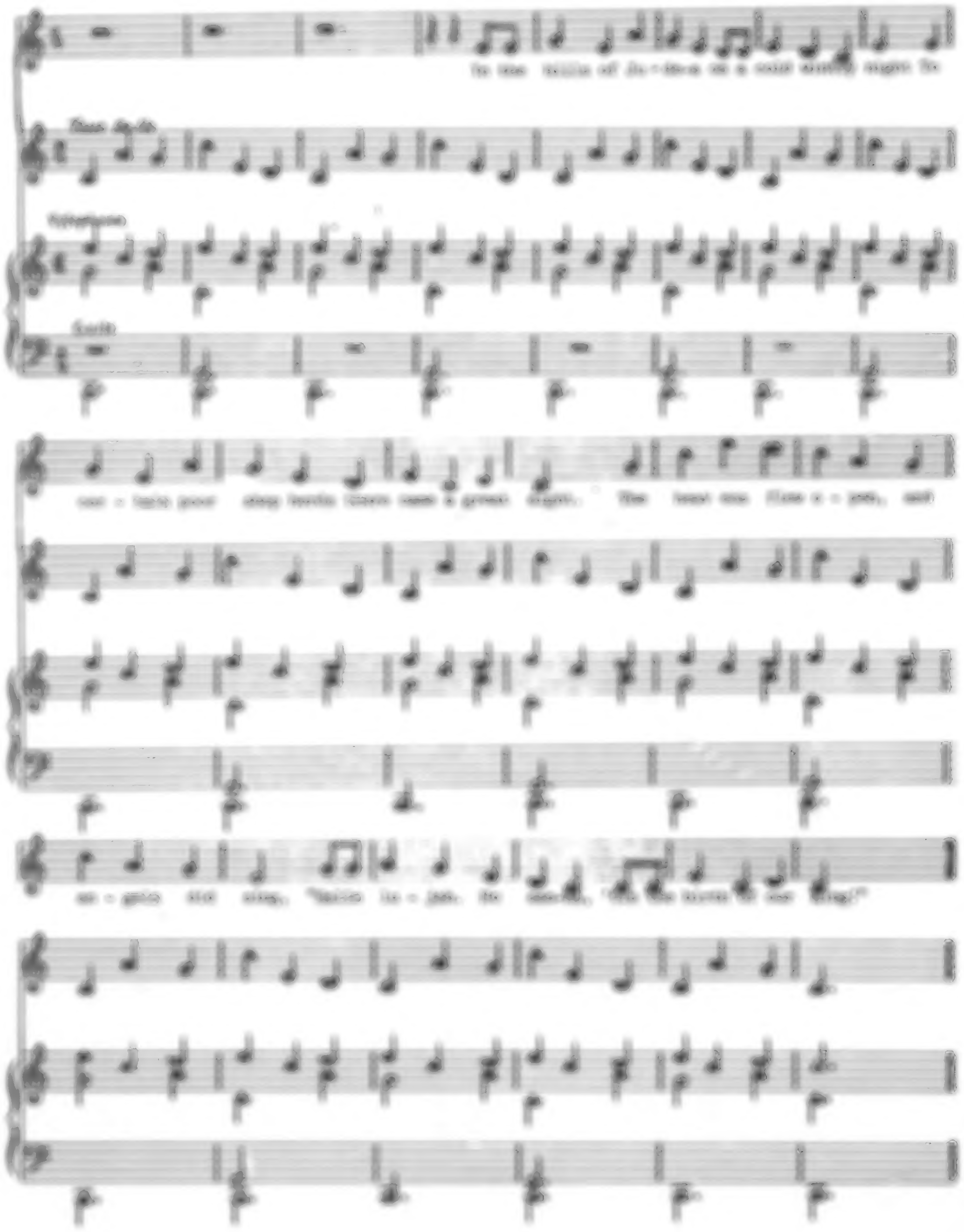
The child who had invented the mi, do, re pattern claimed it for the tune. But the class thought her material should wait a measure or so, to be saved for the end of the line. They preferred the pattern do, mi, re instead.

Since the class had thus made use of repetition to gain coherence for the song, the teacher suggested that the third line beginning, "The heaven flew open" should be the most exciting part of the song. The children responded by agreeing that the highest note, high do, would certainly be proper. On another day after singing the song with words and instrumental accompaniment the teacher pointed out that the last phrase seemed to lack vitality--the vitality that was needed to express the joyousness of the words. So immediately other versions were suggested. The variation that finally was sung at Christmastime is found on the next page.

Out of this creative endeavor grew a teacher-led discussion of the elements of good melody writing. Here are some of the ideas she shared with the class.

There is certainly no "best" way to write a melody. Some of the more interesting melodies are those which seemingly do the least expected. However, there is one attribute common to all good melodies and that is the "forward movement" to the climax of the song. Commonly this climactic note is the high note of the song. Sometimes the melodic climax is obtained at the long tone in the melody. Notice, also, that good melodies move smoothly, usually by steps or chord line progressions. In each case the balance between stepwise and skipwise progressions is the important aspect. Usually skips are followed by stepwise movement which usually change the direction of the melody. The important thing in writing melodies that are to be sung is that they must be singable. Wide skips are suited for the string bass ostinato, but these skips would present considerable difficulty to the singer.

A CHRISTMAS SONG

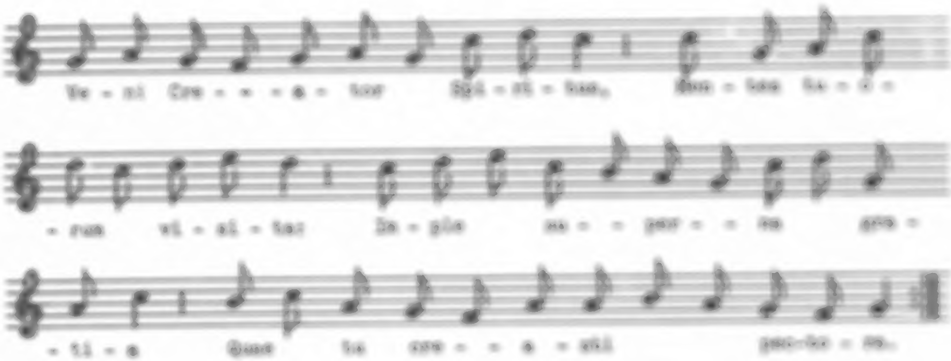

In the hills of Ju-de-a on a cold wintry night Th-
Tone Bells
Xylophone
Bass
sat - tle poor sheep herds there came a great sight. The heav-ens flew o-pen, and
an - gels did sing, "Hallo lu-jah. He cometh, the Lord, the King!"

GREGORIAN CHANT WRITING

Gregorian chant is one of the earliest types of Western music known to man. It existed from about 200 A.D. to 1200 A.D. Because there was a variety of chants during this period, the title "Gregorian" refers to a special type used in the Catholic religious service. The title is actually derived from Pope Gregory the Great who, in the Sixth Century, collected and organized over six-hundred such religious chants. Many Gregorian chants were used in daily church service. Others were used only on special occasions such as Christmas, Easter, or Lent.

There are a number of special features in a Gregorian chant that make it different from any other type of musical composition you might hear. Several of these characteristics are fairly obvious, even to someone who hears a chant for the first time. For instance, listen to the following chant and try to describe something about the music:

Veni, Creator Spiritus


Ve - ni Cre - - - a - tor Spi - ri - tus, Men - tes tu - o -
- rum vi - si - ta: Im - ple su - - per - - na gra -
- ti - a Quae tu cre - - a - sti pec - to - ra.

One of the first things that probably occurred to you was that voices were performing the music rather than instruments. If you listened very carefully, you may have also discovered that only men's voices were singing.

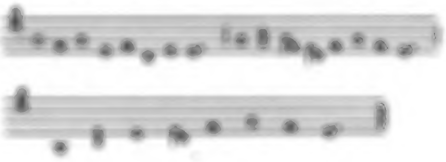
Did you also notice that there was no accompaniment?

Granted, there are a number of men's voices singing, but note that they are all singing the same melody. Only one continuous line of melody is heard from beginning to end.

Now, this may seem like a very simple kind of music to you at first. After all, just singing a melody couldn't be all that interesting. But if we investigate some other aspects of Gregorian chant music, and even attempt to compose one, I think that you will begin to appreciate the unique and beautiful style of this music. With this in mind, let us take a look at four additional characteristics of chant.

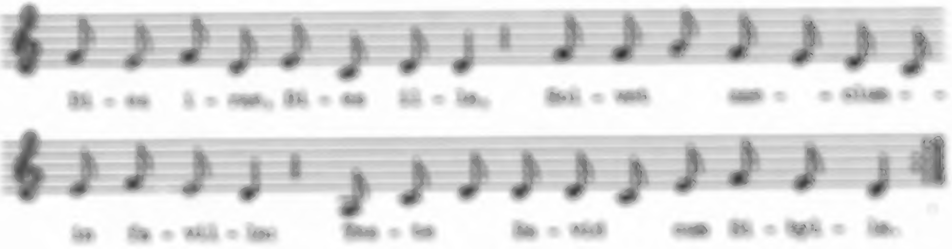
First of all, when early composers attempted to write chants, they had no ready-made system of music notation such as we do today. Thus, forced to invent their own system, composers developed a means for notating music which was called "neumes." Neumes were little signs that could be drawn on lines or spaces of a staff to indicate the pitches of a chant melody. Here is an example of early chant notation using neumes:

Dies Irae



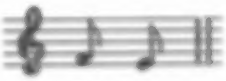
As far as pitch goes, neume notation was a fairly successful way of composing chants. Meter, rhythm, and tempo, however, could not be notated as accurately. Here, a conductor was needed to keep the singers together as they followed the neume signs. The tempo of the meter was usually the same for every chant. The idea was that the basic meter proceeded at about the same speed as the human heart-beat. As the beats of the meter ticked by, the melodic rhythm would coincide with each beat, and then rest for several beats. The effect of the entire chant was thus one of a collection of shorter melodies (phrases) making up one long melody.

The terms "action" and "rest" probably best describe what happens as each phrase of a chant unfolds. The following chant, for example, is composed of three action-rest phrases:

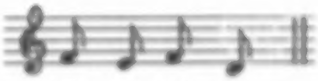

Di - es i - rae, di - es il - la, Sol - vet sae - - clum - -
in fa - vil - la: Tes - te Da - vid cum Si - byl - la.

In the first phrase, the "action" part includes all of the eighth notes that coincide with the basic beat. The action comes to "rest" with the quarter note at the end of the phrase. The incomplete bar line is frequently used to mark off each phrase. The second and third phrases unfold in a similar manner. The series of short notes (♪'s) always indicates the "action," and the longer notes (♩'s) at the end, the "rest."

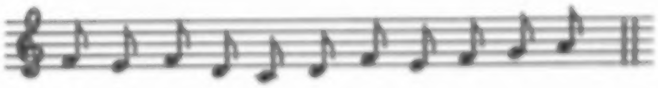
By now you have probably noticed that "action-rest" phrases are not necessarily of the same length. In the last example, Dies Irae, the first and third phrases are longer than the second phrase. This leads us to another point to consider concerning chant melody--the way in which composers "set" the words to music. The basic language used was Latin. Chant composers could treat the words in three ways: (a) One way was to use one note for each syllable of a word. In the following example notice that each syllable of the word "Dies" has only one note above it:



(b) Another way to set words was to use two to four notes for each syllable. Here is an example of the same word, "Dies," set in this manner:

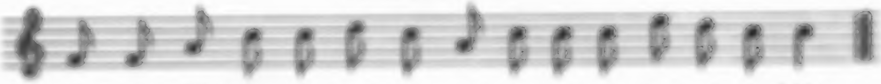


(c) Still another way was to use five or more notes for each syllable of a word. Note the following example, again using the word "Dies."



In addition, a composer could achieve variety in his chant by mixing these three ways. The example below illustrates the use of types (a), (b), and (c) in the same chant.

Viderunt Omnes

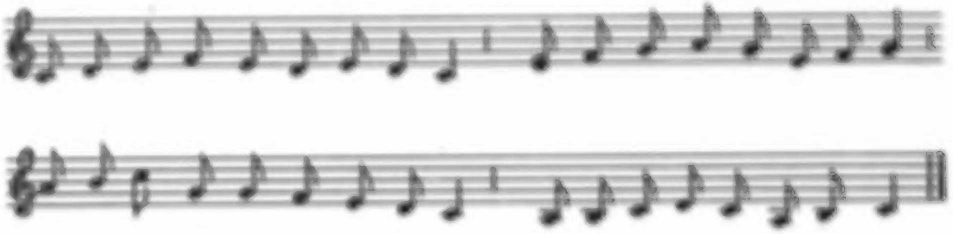


Thus, the length of a phrase depended upon how the composer set the words to music.

Another characteristic of Gregorian chant is their use of scales. A scale is a series of adjacent tones arranged in half steps and whole steps from which melodies are derived. We are most familiar with the major scale. The most important tone in the major scale is do. Although chant composers used the major scale for their melodies, they frequently made other tones as important as do. That is, they might decide to compose a chant that began and ended on sol or, on mi or re, for that matter. Veni, Creator Spiritus is an example of a chant which uses the major scale, but begins and ends on re.

One final point needs to be considered. It has to do with melodic movement. Since chants were written to be sung, composers had to compose their melodies within the limitations of the human voice. To do this, they wrote melodies that moved primarily by steps--from one note to an adjacent note--rather than by skips. A few skips were singable, but never a long series of skips. Examine the following melody and note the predominance of stepwise motion.

Divinum Mysterium



The following is a summary of the six important characteristics of Gregorian chant discussed above:
(a) Chant melodies were composed for men's voices only;
(b) Gregorian chant is composed of a single line of melody with no accompaniment;
(c) Chant melodies are made up of a number of "action-rest" phrases of varying length. The "action" pertains to the eighth-note movement of each phrase; the "rest" pertains to the quarter notes that terminate the action.
(d) Chant melodies use a Latin religious text, the words of which could be "set" in three different ways:

(1) one note to one syllable;
(2) two to four notes to one syllable;
(3) five or more notes to one syllable.

(e) Chant melodies are composed upon a series of adjacent tones arranged in half and whole steps, called scales.
(f) Chant melodies move primarily by step, with only an occasional skip for variety.

Let us now attempt to compose a Gregorian chant keeping these points in mind. We must first choose a Latin text and then divide each word into syllables. Let us use the following text:

Text — Divided into Syllables

Kyrie eleison = Ky - ri - e e - le - i - son

Christe eleison = Chris - te e - le - i - son

Kyrie eleison = Ky - ri - e e - le - i - son

The following is a translation of the Latin:

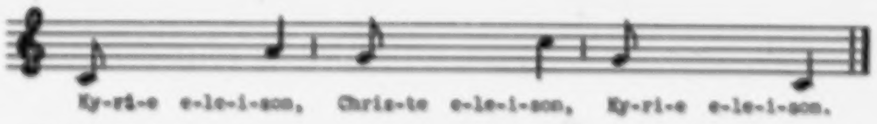
Lord have mercy upon us,

Christ have mercy upon us,

Lord have mercy upon us.

The text is naturally divided into three sections; therefore, our melody will most easily divide into three "action-rest" phrases. Next, we must decide upon a scale from which to derive our melody. Let us use the C Major scale for our example and begin and end on do.

We should now establish the direction that our melody will take. Unless we want our melody to be dull and unmusical, we must make it go somewhere. To do this, we can set up tentative goals for ourselves by sketching out the direction that we want each action-rest phrase to take, as in the following example:

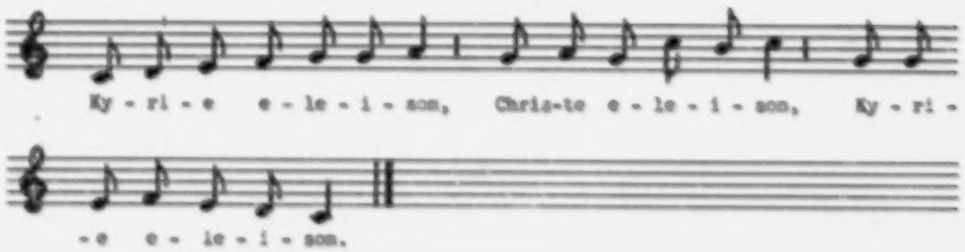

Ky-ri-e e-le-i-son, Chris-te e-le-i-son, Ky-ri-e e-le-i-son.

Notice that there is a general shape to our melody: the first phrase ascends; the second phrase ascends even higher; and the third phrase descends back to the final tone.

Once this is established, we must decide how to fill in the intervening tones leading to each goal. There are many possibilities here.

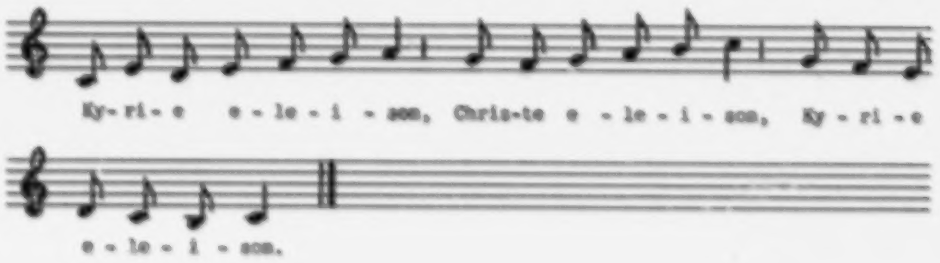
The important thing to remember is that this "path" must move primarily by step, with only an occasional skip for variety.

Much of the melodic movement will depend upon the treatment of the text. Let us "set" the words to music by using one note for each syllable. Later on you may wish to combine all three ways of setting words. The following melody results:


Ky - ri - e e - le - i - son, Chris-te e - le - i - son, Ky - ri -
- e e - le - i - son.

Notice that there are only three skips in the entire melody: one in the second phrase, one between the second and third phrases, and one in the third phrase. Also notice that high do is anticipated in the second phrase. This procedure is possible as long as the goal is not anticipated too soon.

As was pointed out earlier, there are many possible ways to fill in the intervening tones of our basic sketch and still achieve a beautiful chant melody. The following, then, is another way the melody could have been written.


Ky- ri - e e - le - i - son, Chris-te e - le - i - son, Ky - ri - e
e - le - i - son.

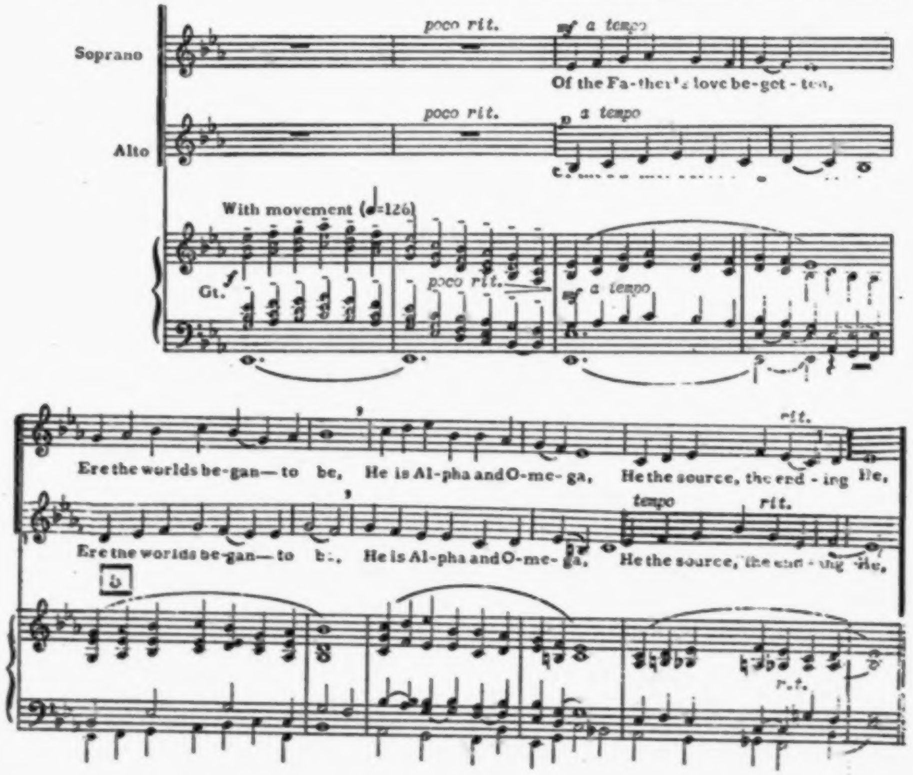
Using the above procedure, try to compose a Gregorian chant of your own.

DIVINUM MYSTERIUM Another plain song in modern notation. Sing it smoothly, with the rhythm of the text guiding the phrasing. This is a song of quiet, religious contemplation.

Divinum Mysterium

From the Latin

Plain Song From the Twelfth Century


Soprano
Alto
poco rit.
mf a tempo
Of the Fa-ther's love be-get-ten,
poco rit.
p a tempo
With movement (♩=126)
Gt.
poco rit.
mf a tempo
Ere the worlds be-gan— to be, He is Al-pha and O-me-ga, He the source, the end-ing He,
rit.
tempo
Ere the worlds be-gan— to be, He is Al-pha and O-me-ga, He the source, the end-ing He,
rit.
5
rit.

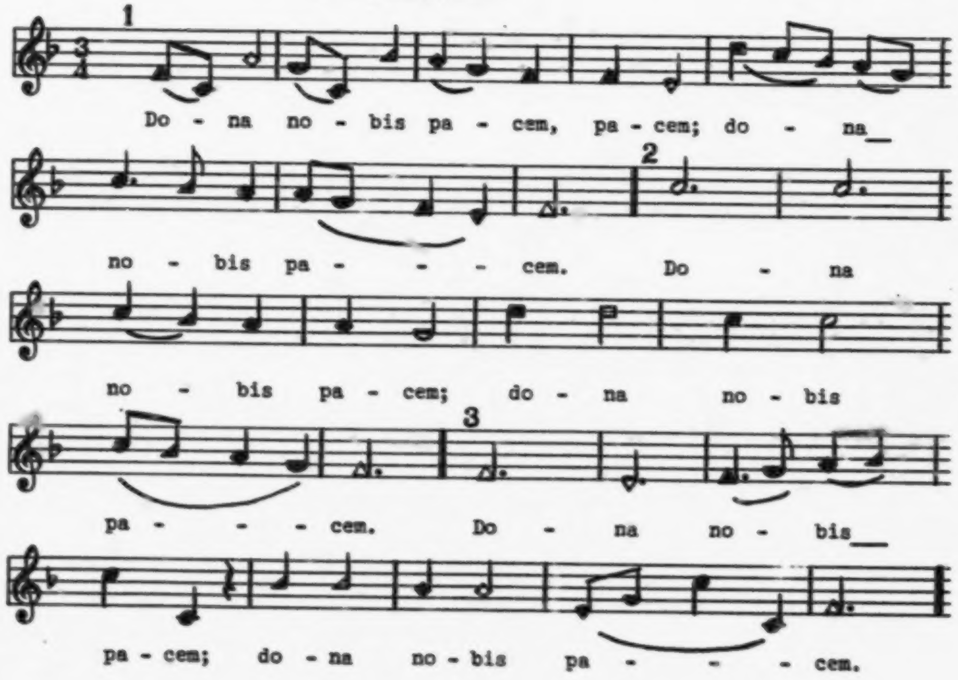
CANON WRITING

A canon (or round) is a procedure in which the same melody is sung or played by several performers beginning at different times. One performer begins the melody, a second performer begins the same melody at a designated point several measures later, and, in a similar manner, a third, fourth, or fifth performer may enter depending upon the number of performers indicated in the music. When each performer has completed the entire melody, he may stop or he may begin again. This "follow-the-leader" principle is called imitation. Each performer imitates, or mimics, what the previous one has done.

The canon is probably one of the earliest known methods of writing music involving harmony. Historians say that it dates back as far as the 14th century.

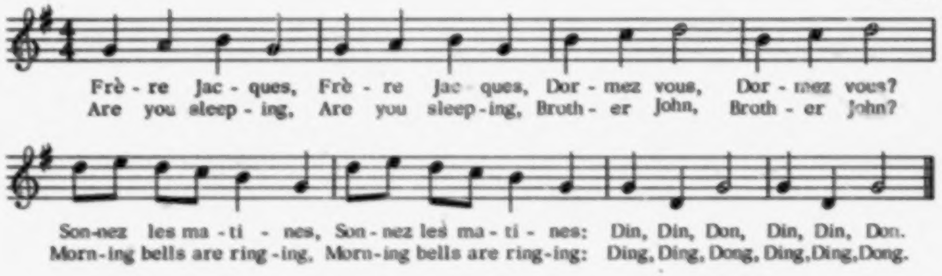
Although only one melody is written, you will hear many voices sounding at the same time. The reason for this is simple. Early musicians were quick to realize that canons could be written out in a kind of musical shorthand. By writing the melody once, and then ascribing Arabic numbers at the places where the other performers were to begin singing, each could sing the identical melody but would not begin until the previous singer had arrived at his starting point.

Dona Nobis Pacem

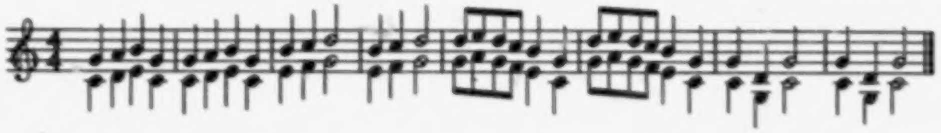

1
Do - na no - bis pa - cem, pa - cem; do - na
2
no - bis pa - - - cem. Do - na
no - bis pa - cem; do - na no - bis
3
pa - - - cem. Do - na no - bis
pa - cem; do - na no - bis pa - - - cem.

Frère Jacques

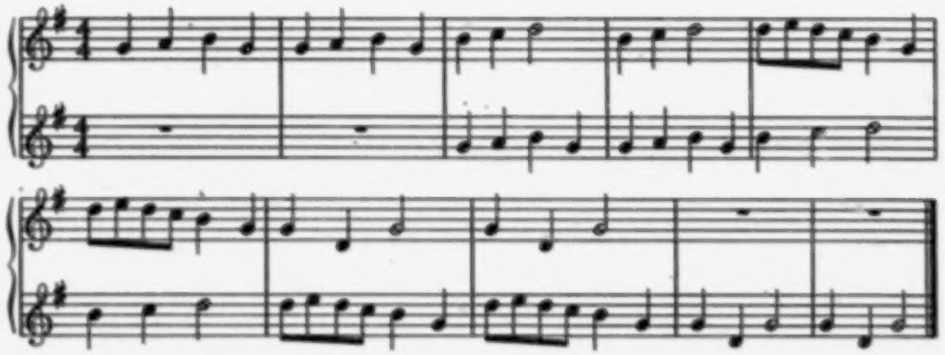
French


Frè - re Jac - ques, Frè - re Jac - ques, Dor - mez vous, Dor - mez vous?
Are you sleep - ing, Are you sleep-ing, Broth - er John, Broth - er John?
Son-nez les ma - ti - nes, Son - nez les ma - ti - nes: Din, Din, Don, Din, Din, Don.
Morn-ing bells are ring-ing, Morn-ing bells are ring-ing: Ding, Ding, Dong, Ding, Ding, Dong.

Frère Jacques in Parallel Motion

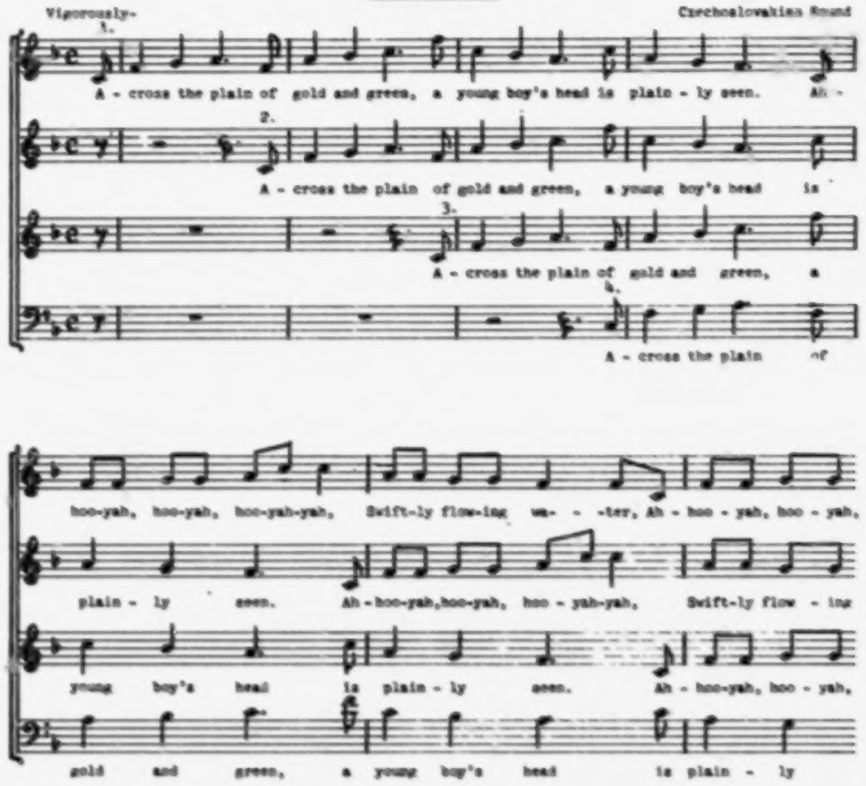


Frère Jacques as a Canon



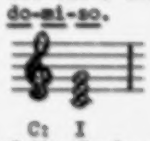
Here is a modern-day canon entitled Across the Plain. If you were to write Across the Plain as it actually sounded, it would look like this:

ACROSS THE PLAIN

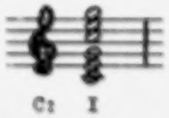

Vigorously-
Czechoslovakian Round
1.
A - cross the plain of gold and green, a young boy's head is plain - ly seen. Ah -
2.
A - cross the plain of gold and green, a young boy's head is
3.
A - cross the plain of gold and green, a
4.
A - cross the plain of
hoo-yah, hoo-yah, hoo-yah-yah, Swift-ly flow-ing wa- - -ter, Ah - hoo - yah, hoo - yah,
plain - ly seen. Ah - hoo-yah,hoo-yah, hoo - yah-yah, Swift-ly flow - ing
young boy's head is plain - ly seen. Ah - hoo-yah, hoo - yah,
gold and green, a young boy's head is plain - ly

If you were to attempt to compose a canon, you might begin by using the above version of Across the Plain as a learning model by working backwards. For instance, observe that when all of the parts are written out, they form individual clusters of sound--tones are piled on top of other tones. These clusters of sound are called chords. The resultant phenomenon produced by a chord sounding is called harmony. It is now possible to observe a progression of tones either harmonically or melodically. You may compose a two-part canon by using a simple harmonic scheme, perhaps only one chord (the Tonic chord, for example).

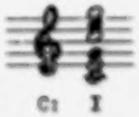
As a guide, first write out the I chord. In this case use the key of C major and its Tonic chord, do-mi-so.

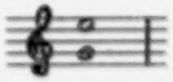


Next, expand the range of the Tonic chord by doubling the same tones an octave higher. This could also be done an octave lower, depending upon whether the canon is to be sung or played. By expanding the chord range, you now have more tones from which to choose in composing the canon melody.

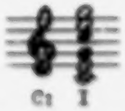


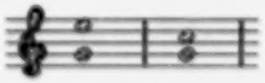
From the above expanded chord extract two notes at the same time. (The distance between any two notes is termed an interval.) If you were composing a three-part canon, you would extract three notes; if a four-part canon, four notes; and so on. Since our canon is to be sung and since human voice ranges are naturally more limited than instrumental ranges, the following is a good rule to remember: Always choose intervals that are no larger than one octave in range. For example, begin by selecting the interval of a sixth (so to high mi) written in whole notes:



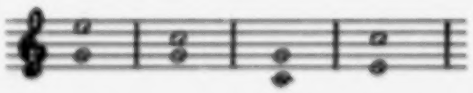


Now select a second interval. Either the same interval or a different one may be used. For this illustration so and high do have been chosen. This interval will be placed in the second measure.

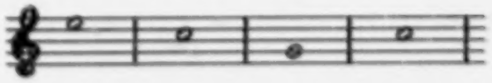




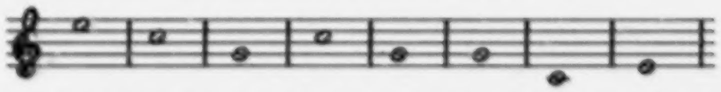
This procedure may be continued for as many measures as you desire; however, for this illustration stop after the fourth measure. Your final four measures will look like this:



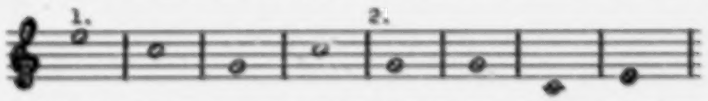
Thus far you have been thinking of tones only in terms of harmony. Now you must consider them melodically by selecting the top notes of the above four measures and rewriting them as a single line melody.



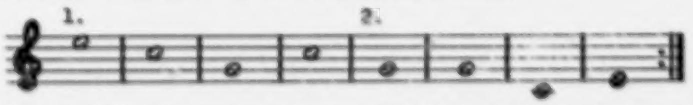
To this add the lower notes of the previous four measures. From four measures of harmony, you now have eight measures of melody.



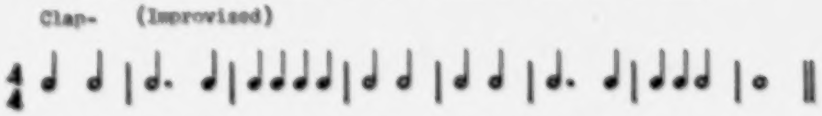
To make this melody into a canon, place the Arabic number "1" over the first measure and the number "2" over the fifth measure. In a two-part canon, the number "1" will always be placed above the first measure and the number "2" halfway through the melody. In a four-part canon, numbers representing the voice entries will be placed at quarter points in the melody.



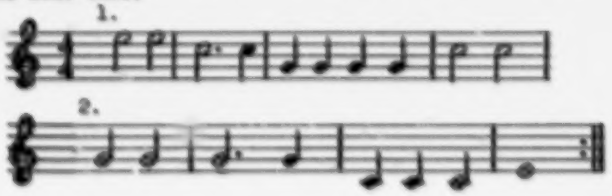
The final step is to insert a dotted double-bar at the end of the last measure so that the melody may be sung several times.



As far as tones are concerned, our canon is complete. You may, however, wish to make the rhythm of your melody more interesting. One way to add interest is to improvise a rhythmic pattern of eight measures in length and then change the whole-notes to fit the pattern. Here is an example:



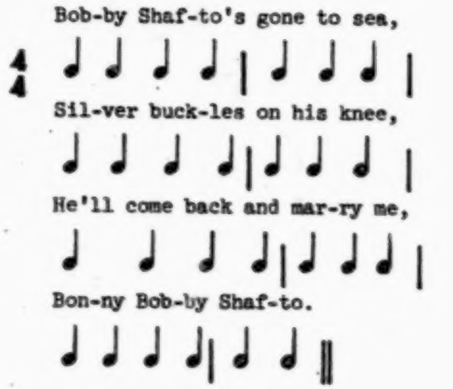
By changing the whole notes to fit this rhythmic pattern, your canon melody now looks like this:



A more appropriate way to make the melody interesting is to use a text and to follow the poetic rhythm that the words suggest. Take the following poem, for example:

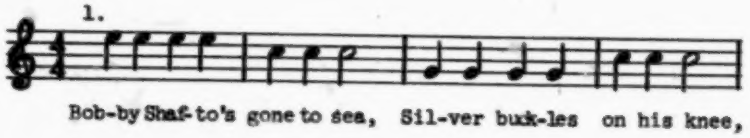
Bobby Shafto's gone to sea,
Silver buckles on his knee,
He'll come back and marry me,
Bonny Bobby Shafto.

One interpretation of the rhythm and meter suggested by these words might be:

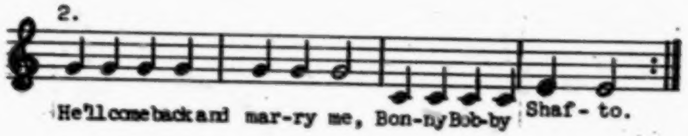

Bob-by Shaf-to's gone to sea,
Sil-ver buck-les on his knee,
He'll come back and mar-ry me,
Bon-ny Bob-by Shaf-to.

Now use the words and rhythmic pattern of this poem in your canon melody.

1.

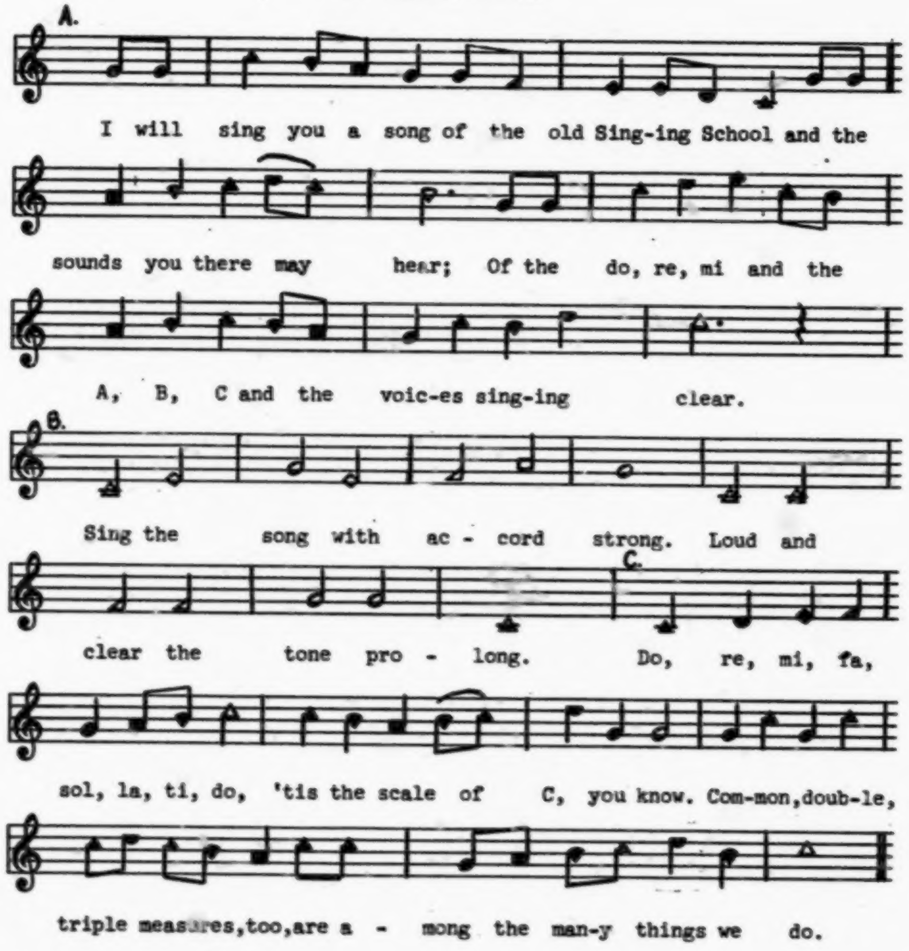


2.



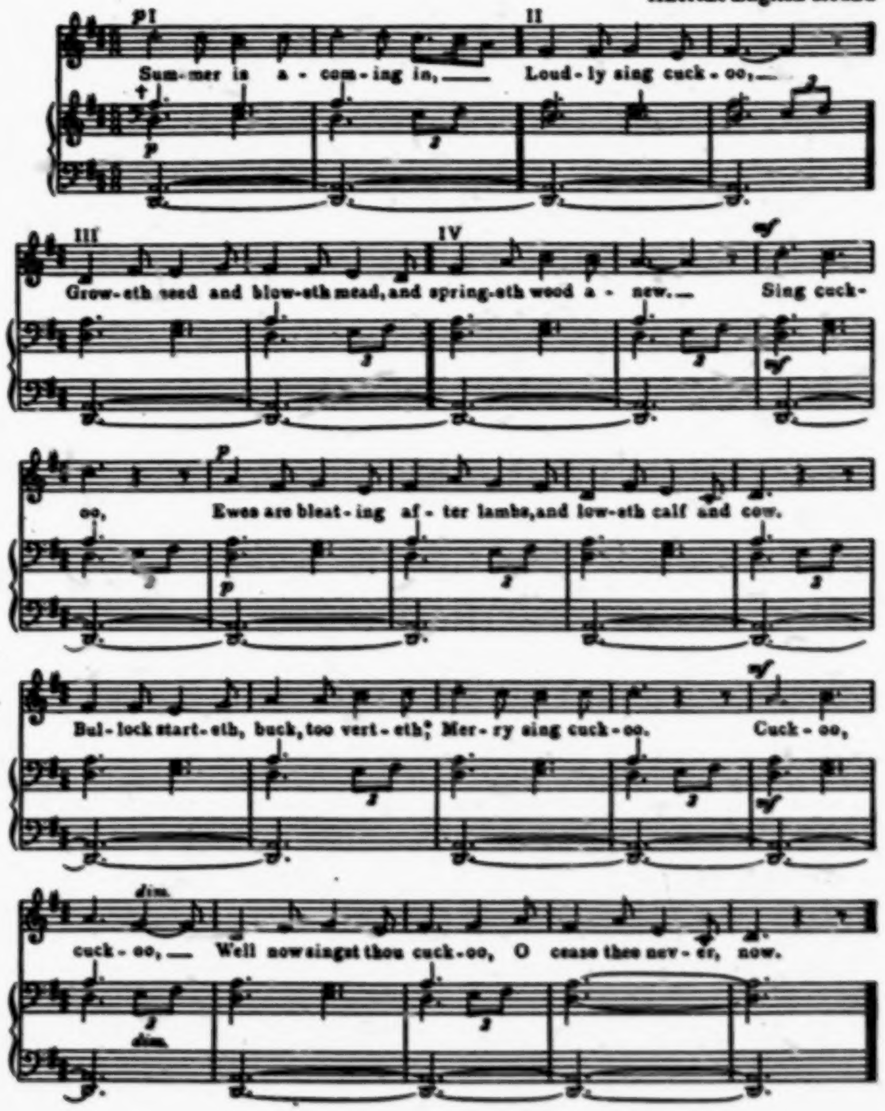
A Canon

THE SINGING SCHOOL


A.
I will sing you a song of the old Sing-ing School and the
sounds you there may hear; Of the do, re, mi and the
A, B, C and the voic-es sing-ing clear.
B.
Sing the song with ac - cord strong. Loud and
C.
clear the tone pro - long. Do, re, mi, fa,
sol, la, ti, do, 'tis the scale of C, you know. Com-mon, doub-le,
triple measures, too, are a - mong the man-y things we do.

Sumer Is Icumen In
(Summer Is A-Coming In)

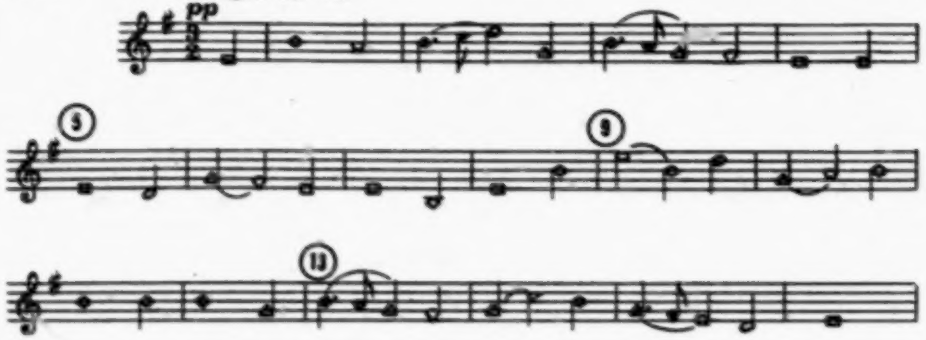
Ancient English Round


p I
II
III
IV
Sum-mer is a-com-ing in, Loud-ly sing cuck-oo,
Grow-eth seed and blow-eth mead, and spring-eth wood a-new. Sing cuck-
oo, Ewes are bleat-ing af-ter lambs, and low-eth calf and cow.
Bul-lock start-eth, buck, too vert-eth; Mer-ry sing cuck-oo. Cuck-oo,
cuck-oo, Well now singest thou cuck-oo, O cease thee nev-er, now.
p
mf
dim.

When Jesus Wept

A Round from the
New England Psalm Singer
1770

WILLIAM BILLINGS

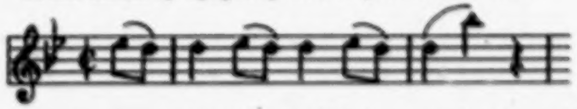


DEVELOPING PITCH MOTIVES FOR MELODY WRITING

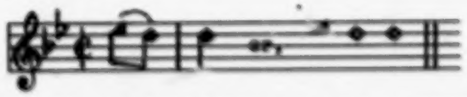
In our previous discussion on "Developing Rhythmic Motives," three techniques were presented to illustrate ways of treating a rhythmic motive when composing a melody. These techniques--repetition, variation, and contrast--may also be applied to the development of a pitch motive.

A pitch motive is simply the smallest recognizable pattern of pitches that is repeated in some way throughout a melody. Observe the following melody:

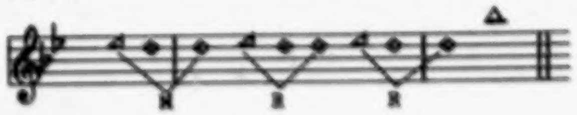
From: Mozart, Symphony No. 40, 1st Movement



Note in the example above that the smallest recognizable pattern of pitches consists of three tones: the interval of a second from fa to mi and the repeated tone mi which occur at the very beginning. You can identify this pattern or shape only because it is repeated twice immediately afterward. Thus, the main pitch motive is:

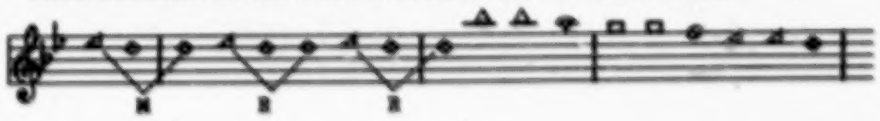


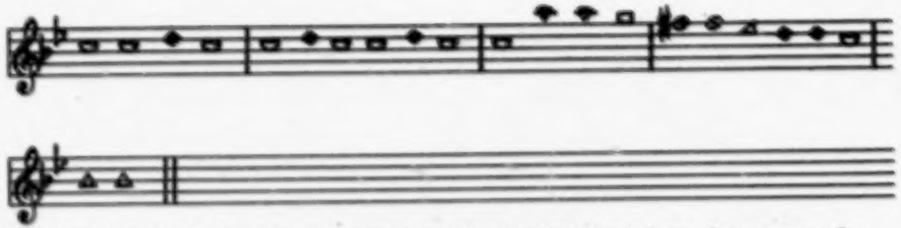
If you recall, the brackett, ⌐¬, was used to identify rhythmic motives in melody. Use a different bracket, ︿, to identify pitch motives. In addition, the abbreviations "M" for main motive, "R" for exact repetition of the main motive, "V" for variation and "C" for contrast will be retained in order to relate pitch motives to one another. To facilitate analysis, the pitches will be separated from the rhythmic structure. The following example outlines the main pitch motive (M) and its two exact repetitions identified thus far.



Now let us see how Mozart further developed the main pitch motive in this melody. Below, the pitches of the melody have been notated without their rhythmic motives. Can you locate any more related pitch patterns?

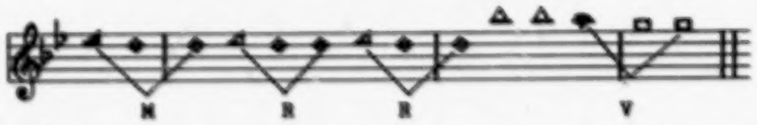
Pitch Structure of the First 8 Measures of the Mozart Melody



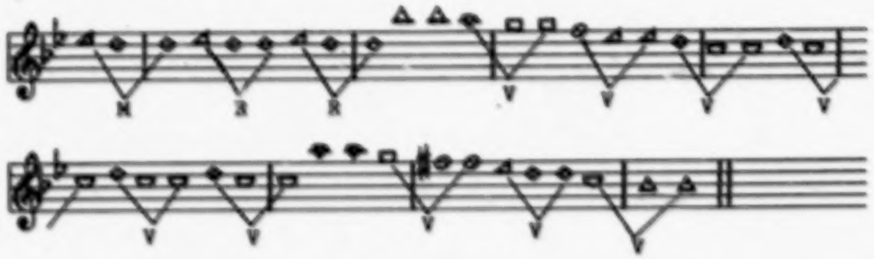


Notice that the last two tones in measure 2 and the first tone in measure 3 have the same shape as the main motive but are repeated an interval of a fifth higher. Since this is not an exact repetition, it must be a kind of variation; label it with a "V."

Variation of Main Motive



Are there more variations of this type? If so, bracket and label them accordingly.



Notice that practically the entire melody is made up of variations of the main pitch motive. You can even relate the unidentified tones in measures 2 and 6 as being a kind of variation since the repeated tone idea can be traced back to the last two notes of the main pitch motive.

One type of development which was not found in this melody was a contrast motive--a motive that has no relation to the main pitch motive.

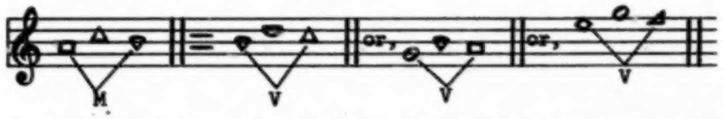
To summarize the pitch structure of the Mozart melody, you finally can say that one pitch motive is developed through repetition and variation.

Pitch structure, like rhythmic structure, will not always analyze into simple and easily identifiable patterns such as in the Mozart example; therefore, in order to gain a more complete understanding of how pitch motives are developed, you need to learn about variation techniques.

There are four techniques for varying a pitch motive. The first one, called sequence, was already discovered in the Mozart melody. A more thorough discussion of it and some other techniques are presented below:

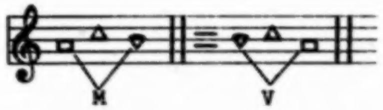
1. Sequence--means to retain the basic shape of the main pitch motive but move it up or down to another pitch level as in the following example:

Sequence

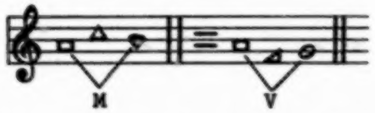


2. Transform--means to retain the basic interval shape of the main motive but writing it either upside-down, backwards, or upside-down and backwards:

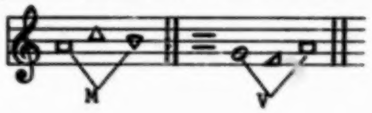
Main Motive Written Upside-down



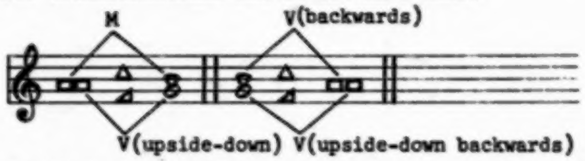
Main Motive Written Backwards



Main Motive Written Upside-down and Backwards

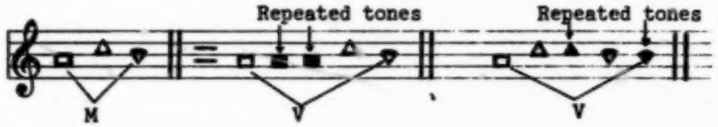


The best way to figure out transformations is to write the main pitch motive and the three transformations all at the same time:



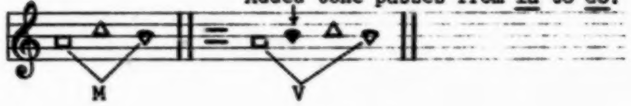
3. Embellish--means to add tones to the main pitch motive. There are three ways to do this: through the use of repeated tones, passing tones, or neighbor tones as in the following examples:

Repeated Tones



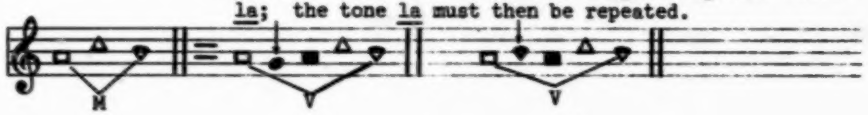
Passing Tones
(Usually appear between any interval of a third)

Added tone passes from la to do.



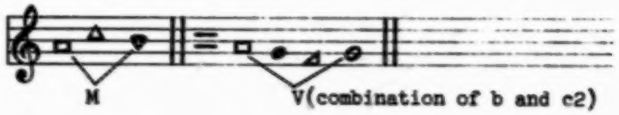
Neighbor Tones
(Must be the nearest neighboring tone to a tone of the main pitch motive)

The added tone is the nearest neighboring tone below la; the tone la must then be repeated.



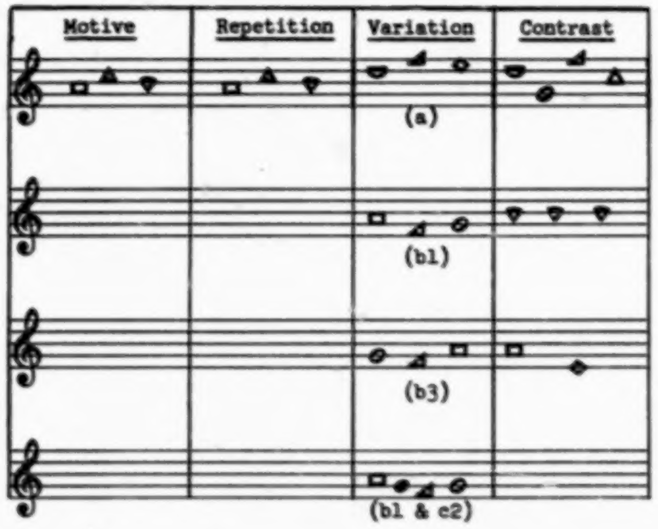
4. Combined variation--means to mix any of the above three variation techniques together at the same time as in the following:

Combined Variation

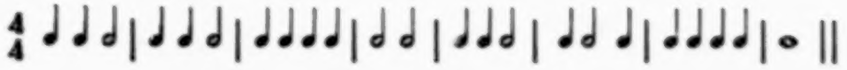


Now develop your own pitch motive into a melody by using the "worksheet" idea. This way you can work out some ideas ahead of time and have them at your disposal. (This time you must use music paper.) Use the main pitch motive presented earlier. Notice that in the "contrast" column of this worksheet example all of the motives are new; that is, none of them relates to the basic shape of our main pitch motive.

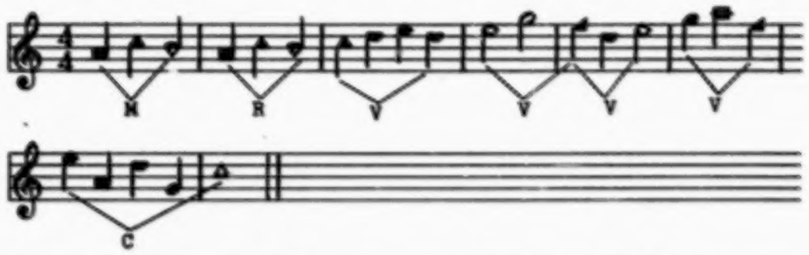
Worksheet for Developing Pitch Motives



Once a main pitch motive has been developed in the worksheet, you can take a previously constructed rhythmic structure of eight measures and combine some of these ideas with it. For example, use the rhythmic structure presented below:



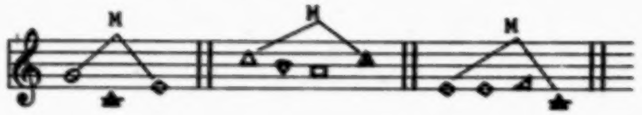
Here is one way you could use the pitch ideas from your worksheet:



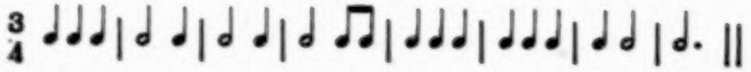
There are, of course, many other ways to use these pitch ideas over the same rhythmic structure which would result in many different melodies.

Exercise: Below are printed several one-measure pitch motives. Choose one of them (or you may want to invent your own) and work out the repetition, variation, and contrast possibilities on a worksheet. From the worksheet, and given a rhythmic structure presented, develop the main motive into a melody.

1. Sample motives to be developed:



2. Use the following rhythmic structure for your melody:

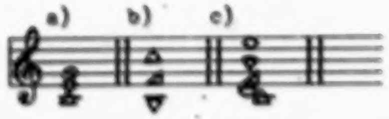


HARMONY

HARMONIZING A MELODY AND COMPOSING A MELODY FROM GIVEN HARMONY

In the present lesson you will be led to discover more about chords and harmony, briefly mentioned in Canon Writing. To begin with, a chord may be defined as three or more different pitches which are sounded together. Harmony, on the other hand, is the resultant sound that a chord produces.

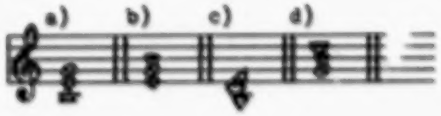
In the Canon lesson, you were asked to compose a canon using only one chord, do-mi-so. But why the tones, do-mi-so? Why not ti-fa-do, or do-re-fa-ti-mi? Aren't these also chords, according to the above definition? Yes, but are they harmonious? To answer this question play these three chords and choose the one which sounds most pleasant:



Now, many of you would no doubt agree that (a) sounds more "pleasant" than (b) or (c) and would choose it. But you might not all agree. Some may think that (b) or (c) sounds best. The point is, that all chords have a different quality of harmony (sound) that is governed by the number and arrangement of pitches within the chord. This quality is judged differently by different listeners, depending upon their previous listening experiences and personal preferences.

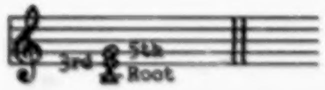
It was said that the answer to the question, "Aren't all three of the examples chords?", was "Yes, they are." But (a) is probably easier to listen to than (b) or (c). This is a good starting place for the study of harmony. Let us see how composers handle the problem of selecting harmonies for their music.

From 1450 to about 1900 the most consistent harmonic element used by composers was the triad. A triad is a chord that is constructed of three different pitches that are an interval distance of a third apart. Below are four different examples of triads out of the many that are available.

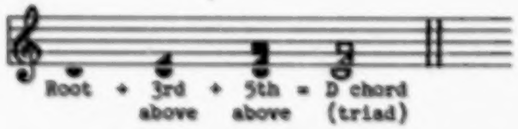


Triads are always constructed from a basic tone called the root. The root is the lowest tone of a chord and identifies the chord by its letter name. For instance, the roots of the four chords in the above example are C, E, B, and G because these are the lowest tones of each chord.

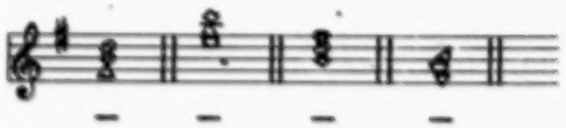
Notice that the tones above the roots are always the same distance from the root. That is, the middle tone is a third above the root and is called the third of the chord; the upper-most tone is a fifth above the root and is called the fifth of the chord. Below is a C triad showing its three parts:



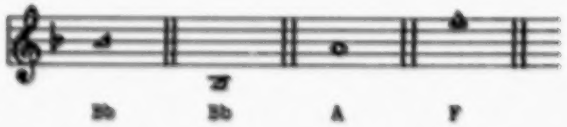
If you construct a triad on the tone D, in the key of C major, D is the root, F is the third (a third above the root D) and A is the fifth (a fifth above the root D). Here is how a D triad appears.



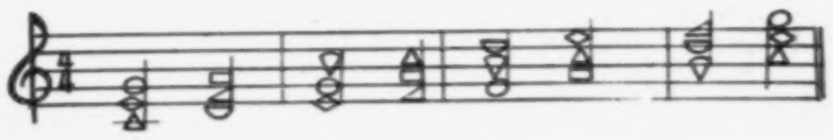
Find the letter name of each of the following triads.



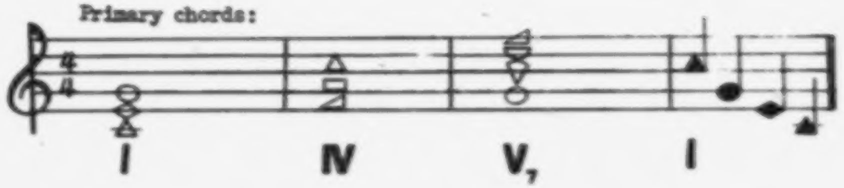
Construct triads on each of the following pitches. The given pitches represent the root of each chord.

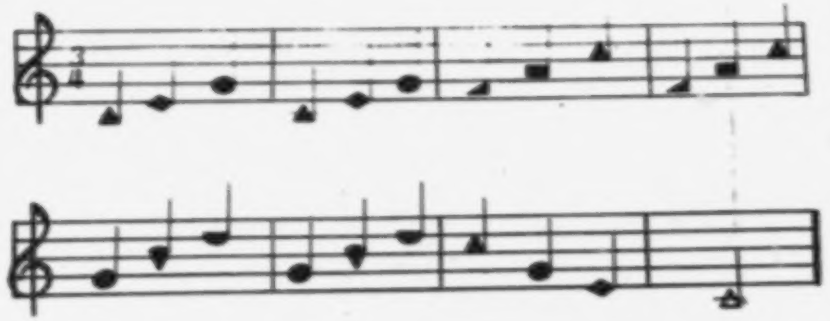


Triads may be constructed on every tone of a given scale. The following example shows all of the possible triads in the key of C (without adding sharps or flats to any of the basic tones). In addition to their letter names, each chord may also be referred to by the degree of the scale that root falls upon. In the C chord, the root falls on the first degree and is therefore given the Roman numeral I. The other chords are identified in the same manner

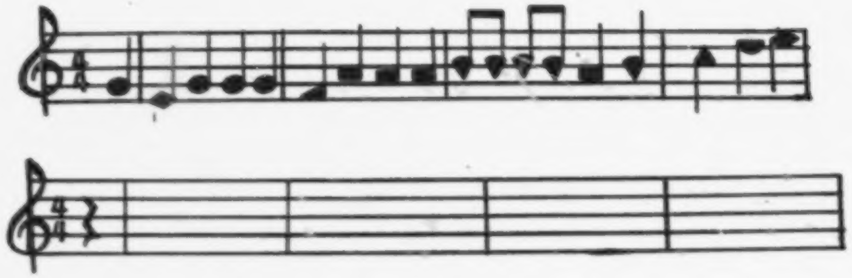


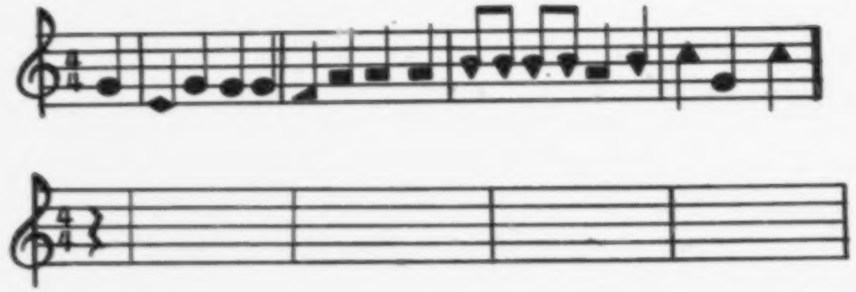
Primary chords:



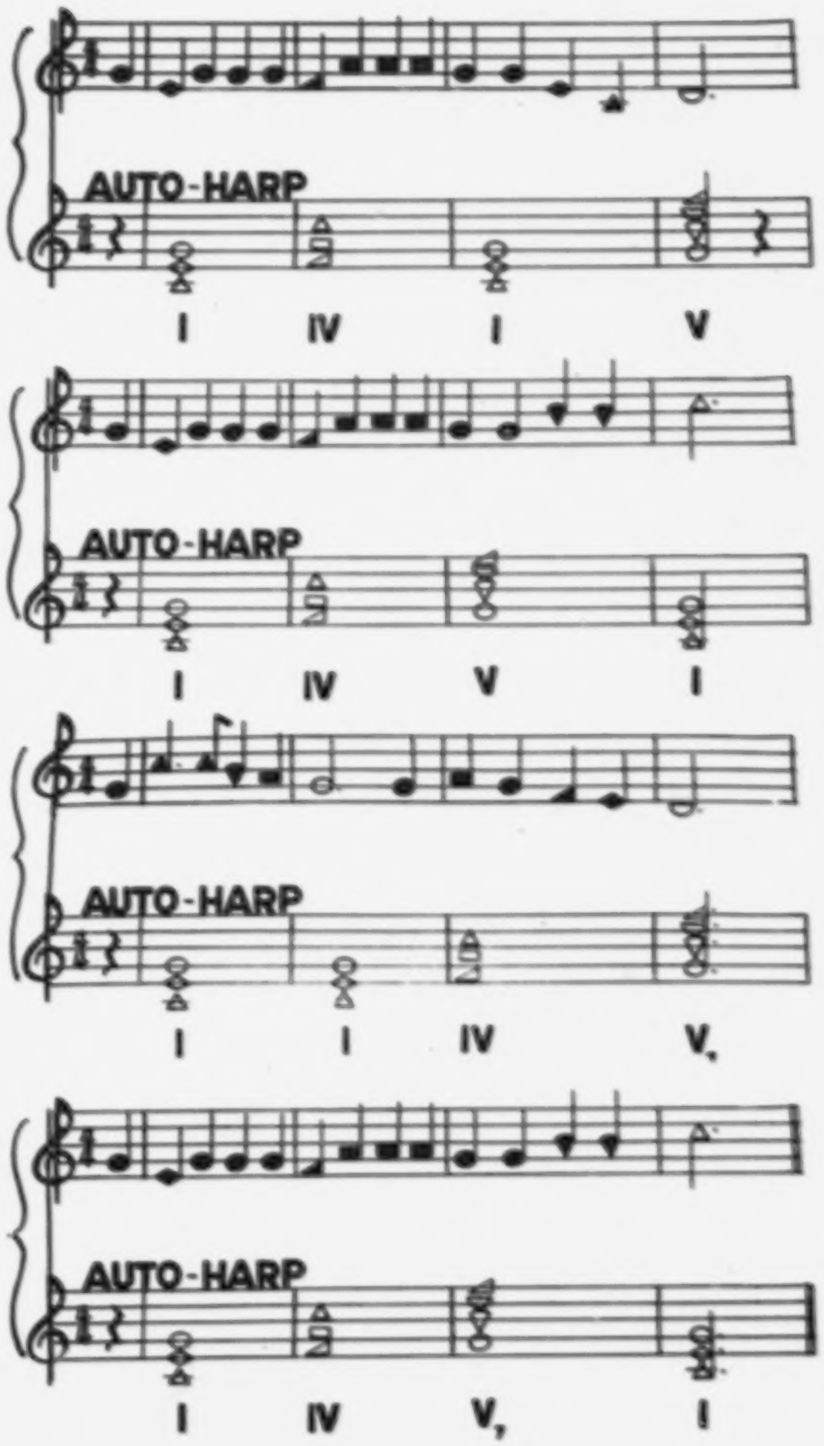


Harmonizing a Melody Using Only the Primary Chords



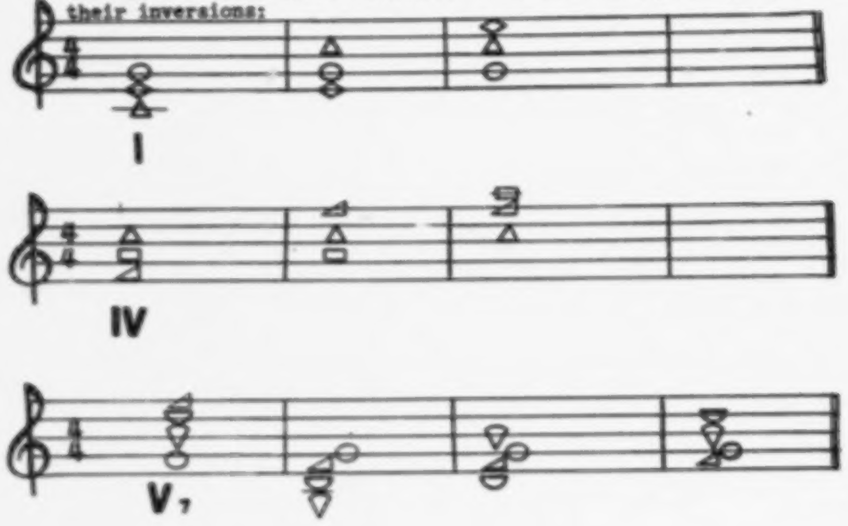


Choose the chord which best fits each measure in the song above. Use only one chord per measure. As a starting technique, simply use the melody's "majority vote" as to which chord includes the largest number of the melody notes in each measure. The leftover notes will be considered as "passing tones" between chord members.

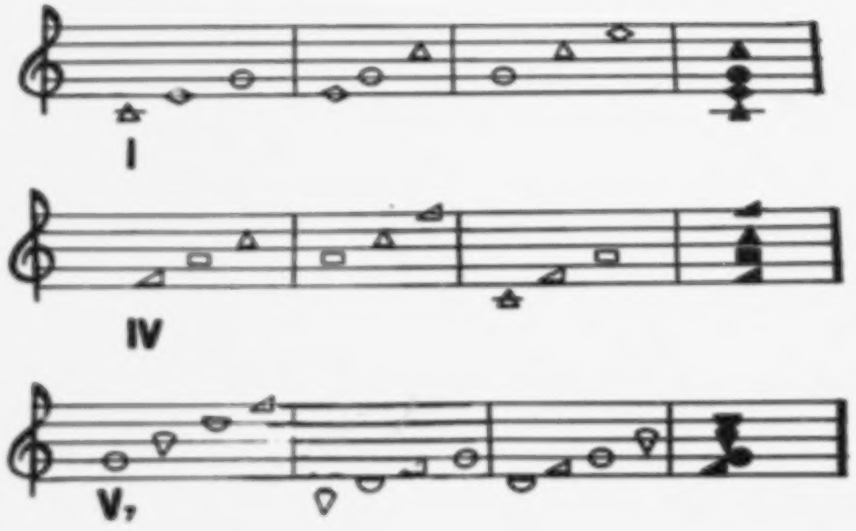


Inversions of Chords

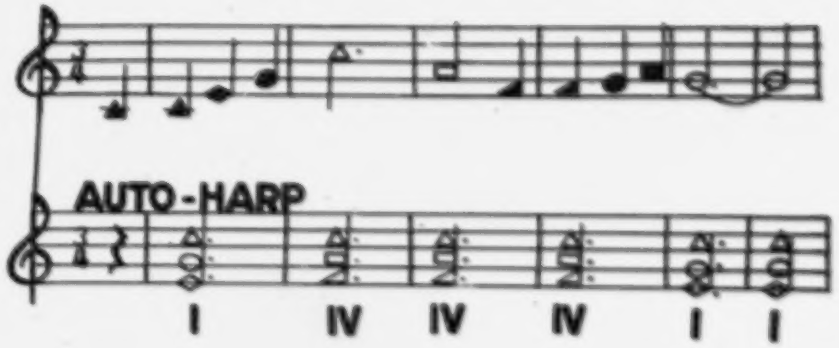
When any note other than the root of the chord is in the lowest voice, the chord is said to be inverted. Here are the 3 primary chords and their inversions:

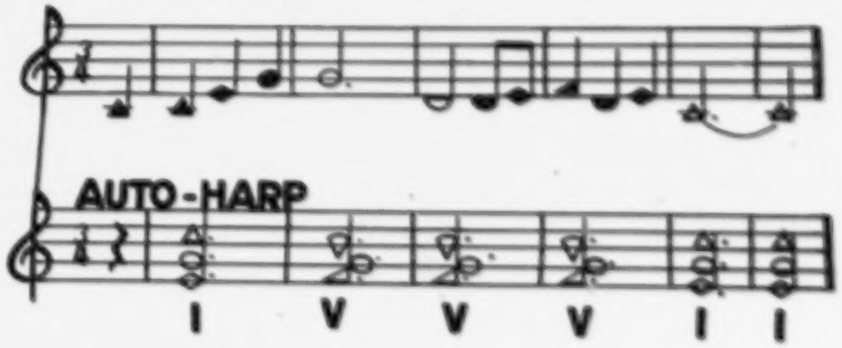


Sing:



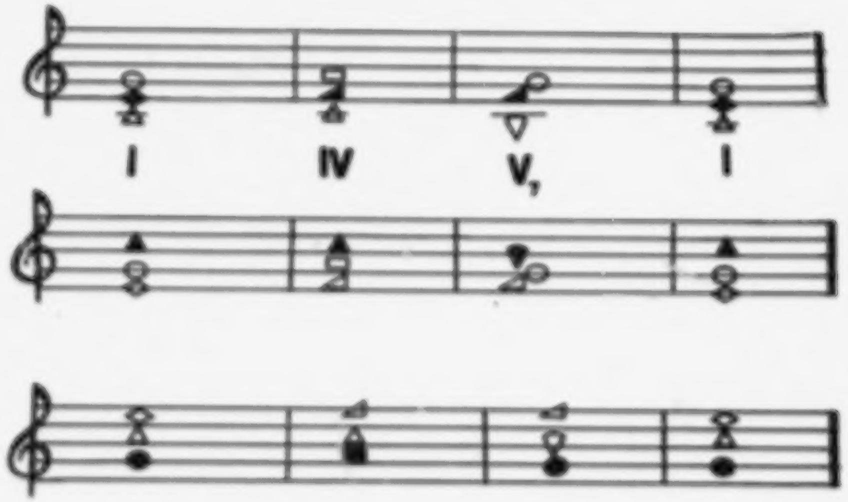
With the use of inversions, a smoothly-moving accompaniment may be written, though still limited to the three primary chords.



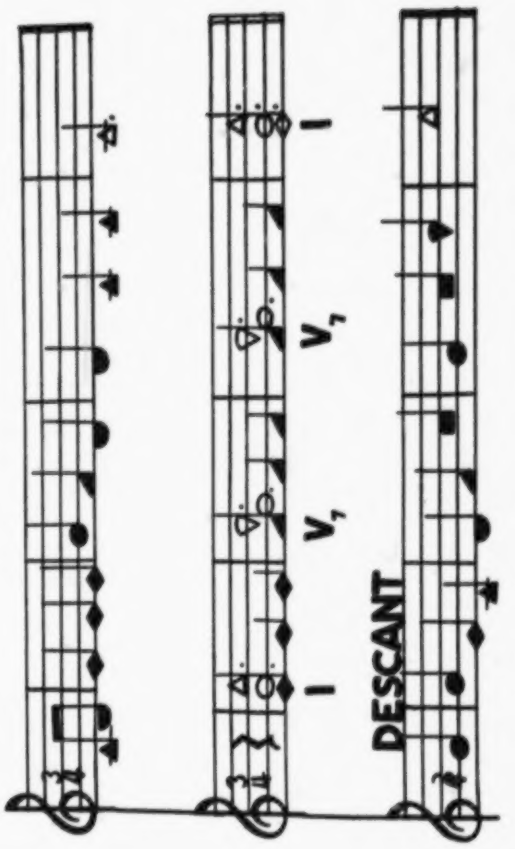


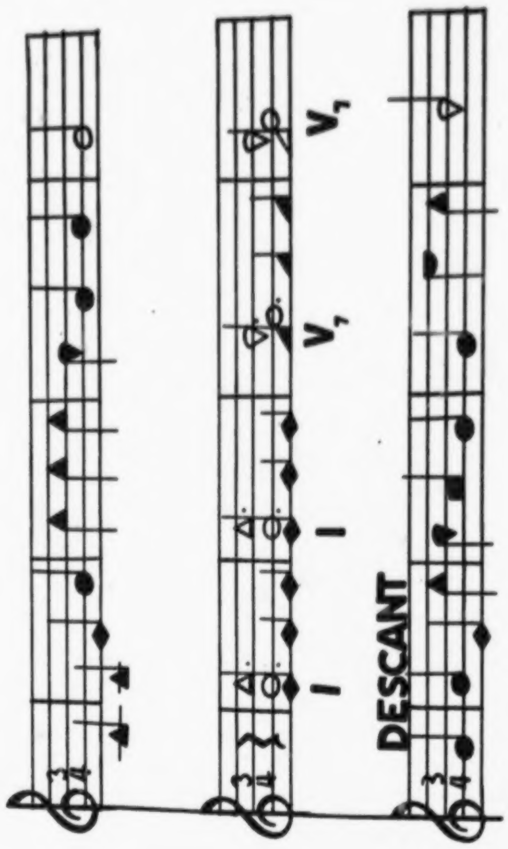
After a melody has been harmonized, using inversions, the very easiest of two-part songs can be derived by merely taking one voice line and adapting to it the rhythm of the melody.

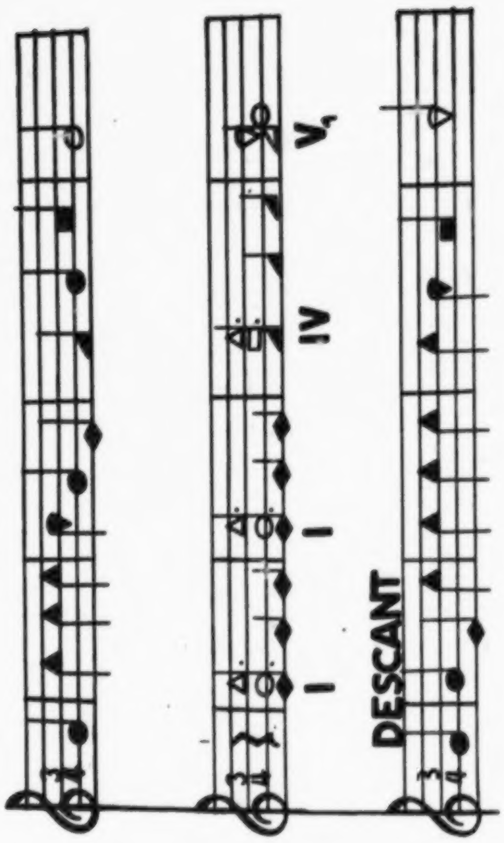
Of course, a more interesting second part would be one that makes use of either of the harmonic tones, though the choice must be made with some regard to the natural voice-leading tendency of the notes involved.

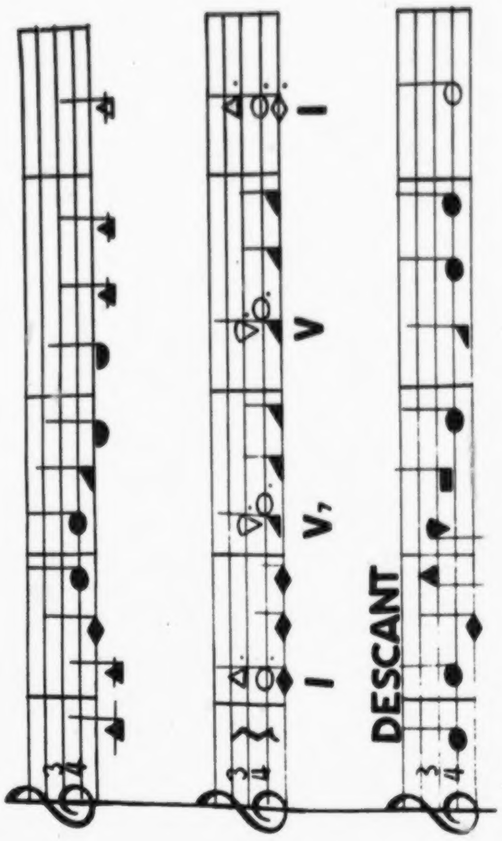


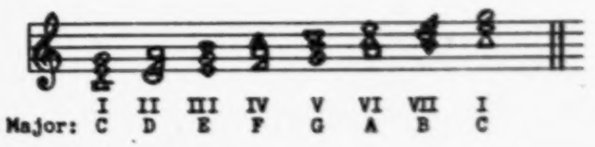
The descant--literally a melody sung against another--is an example of the use of skips along the chord line to gain interest for the second part.


3/4
I
V_7
V_7
I
DESCANT

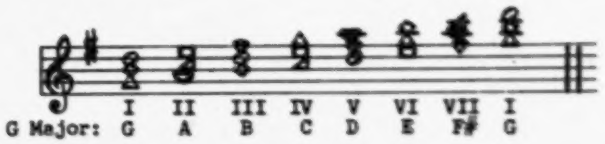

3/4
I
I
V_7
V_7
DESCANT


3/4
I
I
IV
V_7
DESCANT

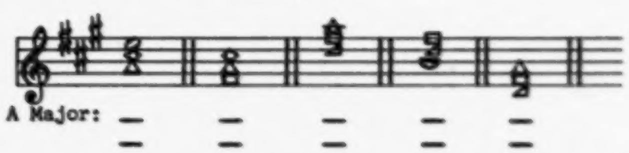

3/4
I
V_7
V
I
DESCANT



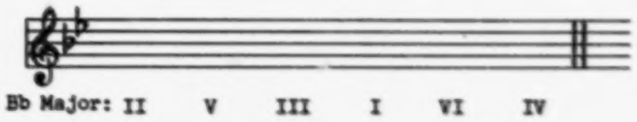
If we construct all of the possible triads in G major, or any other key for that matter, the relationship remains the same but the chords are transposed to another register.



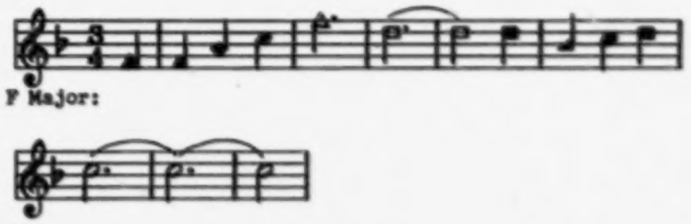
Find the numeral and letter names of the triads in the following scale. NOT ALL CHORDS ARE GIVEN.



Construct triads based on the following numerals in the key of Bb major.

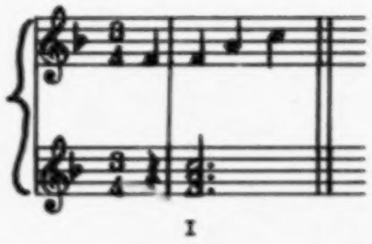


One of the functions of harmony is to add interest to melody. The simplest way to harmonize a melody is to insert triads beneath those tones in the melody which are found in the chord. You may harmonize the first part of the familiar melody, "On Top of Old Smokey," as an example. The first thing to do is to scan the melody and find out what chords the pitches suggest.

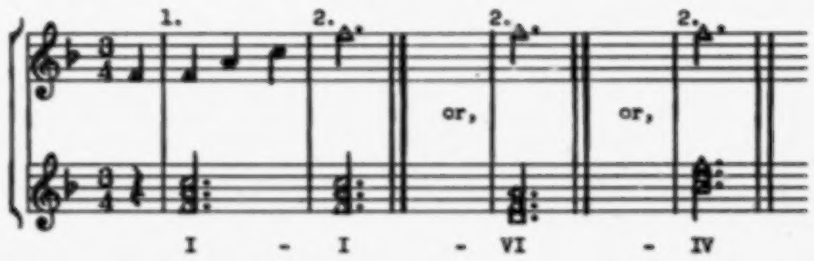


The first two tones, F, suggest either the chords I, VI, or IV. However if you attempted to harmonize every tone, the melody would sound cluttered. Therefore, you may harmonize each measure with one chord.

The first measure, then, suggests the I chord in the key of F major. Thus, write the I triad beneath this measure in treble clef.

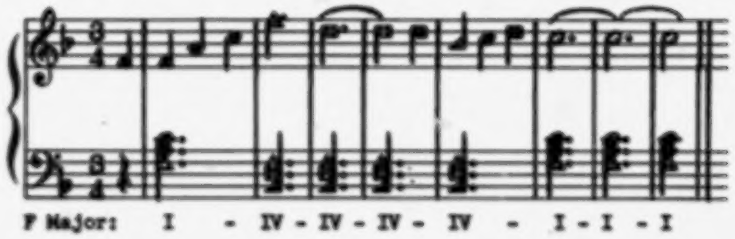


The second measure is not as easy to determine because only one tone, F, is given for 3 beats. You must therefore decide whether to use I, VI, or IV. To do this, let us play all three versions with the first measure and see which one sounds more appropriate.



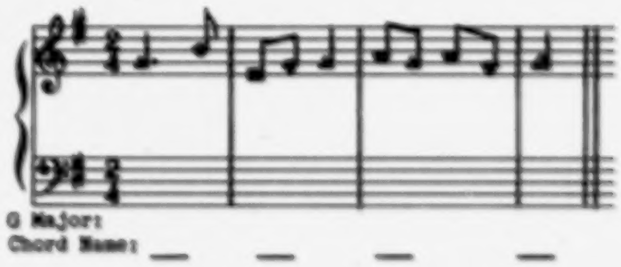
Although all three versions would harmonize with the melody, you would probably agree that the third version (c) is the usual way in which it is harmonized.

If you continued to harmonize the rest of the melody, the result would undoubtedly be a series of chords which resemble the following: Here the harmony is written in the bass clef, as is customary.

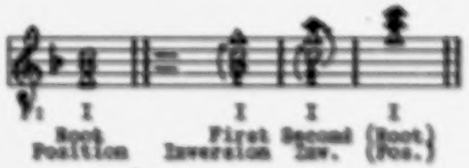


Sometimes a non-chord tone will be used in a melody (such as the C in measure 5 above) that does not fit the chord suggested by the other tones. For the present, however, you may disregard these foreign tones and continue in the manner previously prescribed.

What chords (triads) does the following G major melody suggest? Write the appropriate chord for each measure in the bass clef, below, and name each chord used.



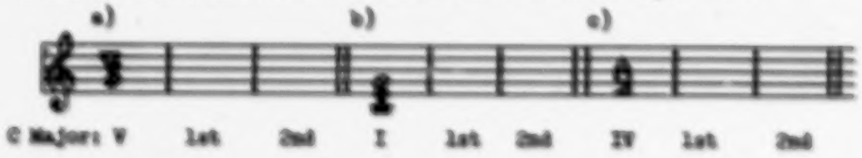
One of the ways in which composers achieve smoothness and variety in harmonizing a melody is to "invert" chords. An inversion is a chord whose tones have been rearranged from root position into new positions. Here is an example of the I chord in C major inverted. There are only two possible inversions for any triad.



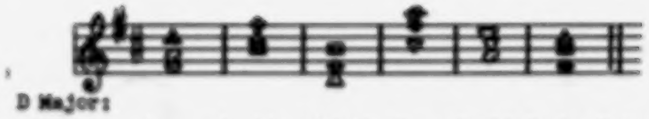
Thus, to find the first inversion of a triad, we place the third on the bottom and the root and fifth above it. For the second inversion, the fifth goes on the bottom and the root and third somewhere above it in another register.

In attempting to find a third inversion, of course, you end up back in root position, but in a new register.

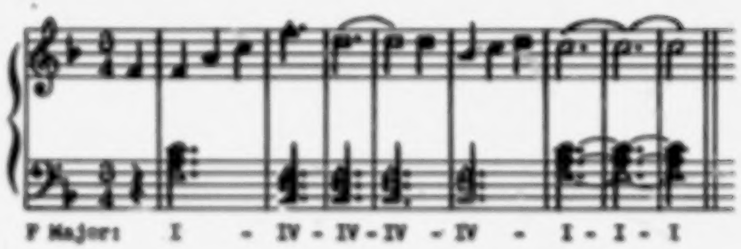
Write the first and second inversions of the following chords.



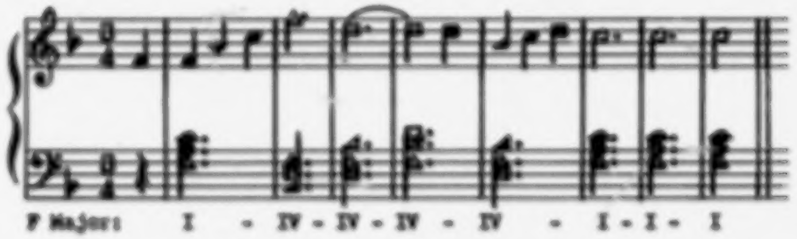
What positions are the following chords in? (First find the letter and numeral names.)



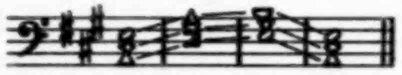
Re-examine your harmonization of "On Top of Old Smokey" to demonstrate the use of chord inversion. If you recall, the IV chord was used for three measures in measures 2, 3, and 4.



To make measures 3 and 4 more interesting you may retain the harmony, but invert the IV chord as follows:

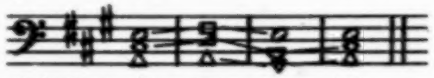


Chord inversion is also useful in changing from one chord to another in a progression. The main problem is, that when a composer keeps his chords in root position, all of the tones must jump to a new position at each change. Note the following progression:



A Major: I - IV - V - I

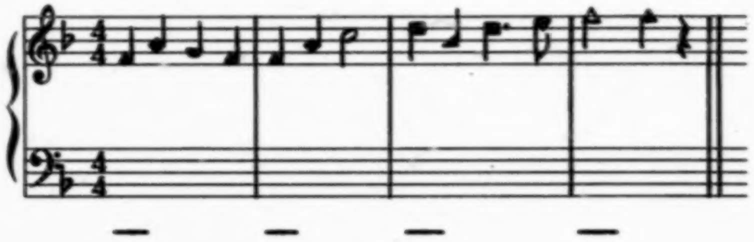
By inverting some of the chords, however, we can keep certain tones, that are common to both chords, in the same register. Compare the following example (which uses inversions) with the I chord (which uses no inversions).



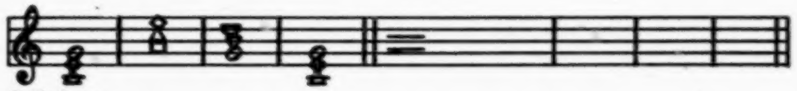
A Major: I - IV - V - I
(Root)(2nd)(1st) (Root)

In the first example above, every note changed. In the second example above, only some notes changed while others were held over. The chord progression is the same in both, however. Thus, inversion may provide for smooth voice-leading in harmonic progressions.

Harmonize the following melody and use inversions where necessary.

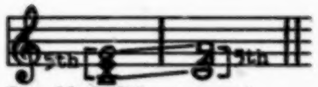


The following chord progression is not very smooth. Retain the same progression, but use inversions to make the voices lead more smoothly.



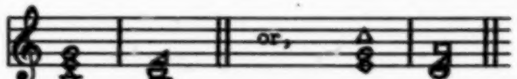
C Major:

One further use of inversion should be mentioned which relates to smooth voice-leading. A characteristic of a well-composed piece of music is that the voices never move in parallel fifths or octaves when changing harmonies. For instance, note that the outer two voices are a fifth apart in both chords and move in parallel motion when changing, in the following example:



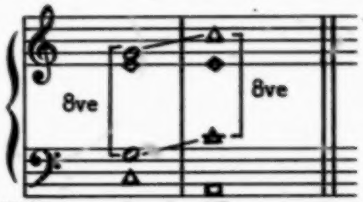
Parallel 5th movement upwards.

By inverting either one of these chords we can avoid the parallel movement. Here is the same progression using inversion:



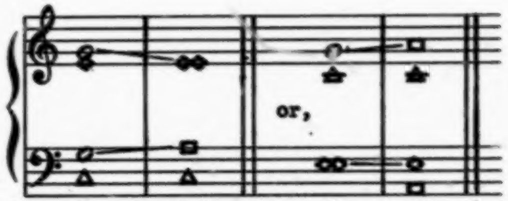
C Major: I - II(2nd Inv.) I(1st)II

Parallel octaves occur when one of the notes of a chord is doubled in another register and it moves to a different chord with the same doubling.



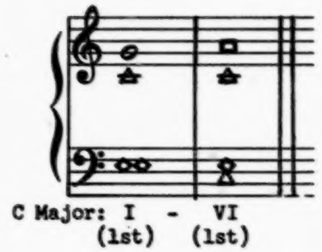
C Major: I - VI
Parallel octave movement.

We can smooth this progression out by using inversion also.

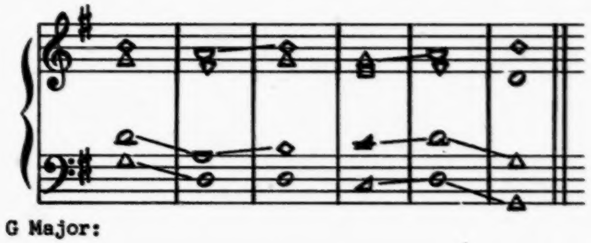


C Major: I - VI I - VI
(1st Inv.) (1st Inv.)

In addition, both chords may be inverted. (But parallel fifths or octaves may still occur in some progressions if not careful.)

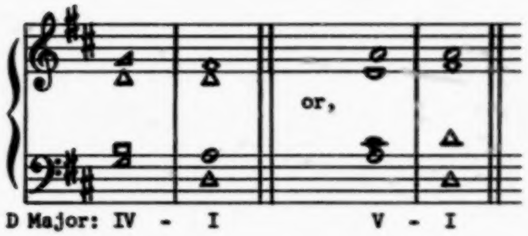


The following progression has parallel fifths and octaves. Rewrite the progression by using inversions so the parallels are avoided. (Identify each chord first).



Compose a four-measure melody based on the following chord progression in the key of E (first write out each chord): I-VI-V-I.

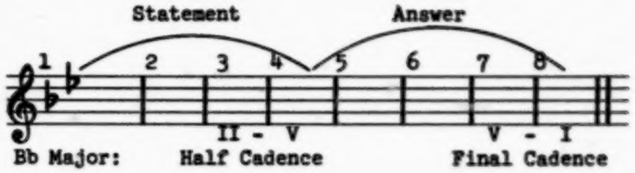
Besides adding interest, chords have an important function of helping to "end" a melody. By using certain chords on the final tones of a melody, the listener is able to know that the melody has ended. In most music composed from 1450 to 1900 the melodies ended in the same key as they began. Thus, if a melody began on the I chord in D major, it would also end on the I chord in D major. But, to help give it a feeling of completion, the IV or V chord may precede the final I chord as in the following:



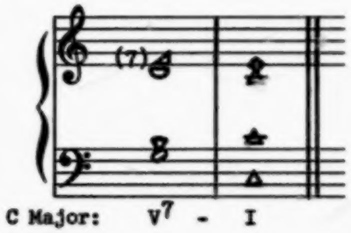
Both of these progressions are called cadences. The progression IV-I is called a plagal (amen) cadence; V-I is called an authentic cadence . The authentic cadence is by far the more important of the two and should be imployed more often than the plagal cadence.

A temporary kind of cadence that is frequently used at the end of a statement phrase is called a half cadence. The half cadence ends on the V chord and may be preceded by any chord.

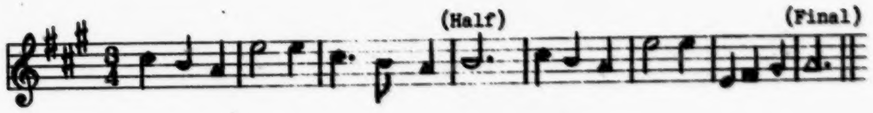
A typical 8-measure statement-answer type melody, then, would use the following cadences:

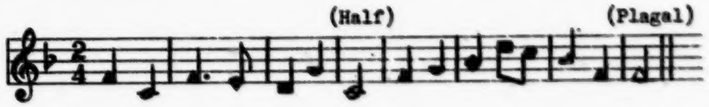


An additional tone, the seventh above the root, is frequently added to the V chord of the final cadence to make it even more complete.

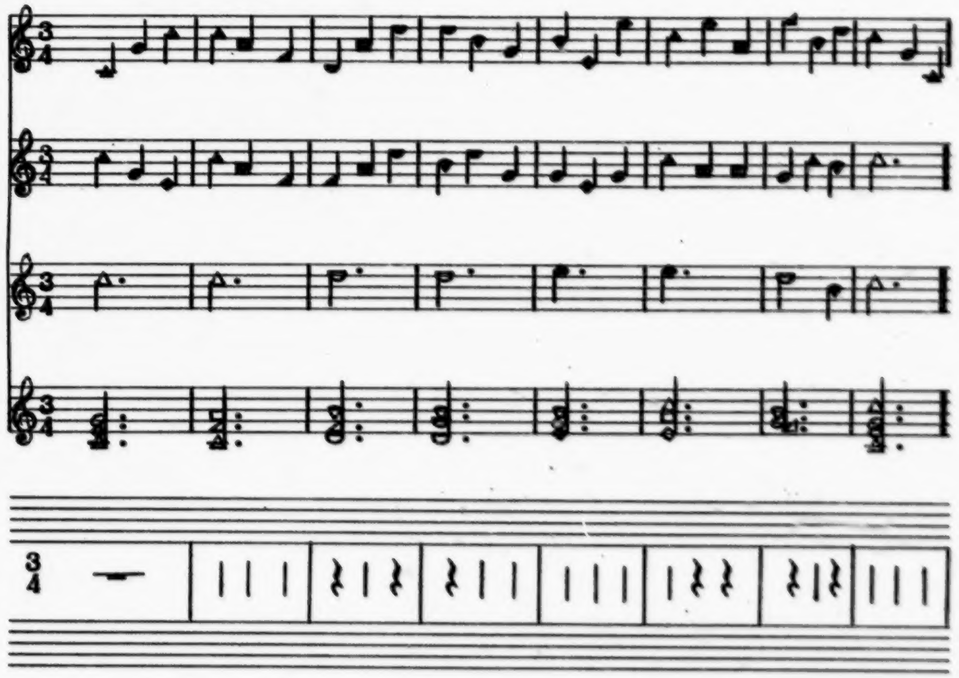


Harmonize the following melodies using inversions and the cadences indicated.





Sing the following song as a canon while the bottom line is played on the piano.



COMPOSING MELODIES OVER A CHORD STRUCTURE

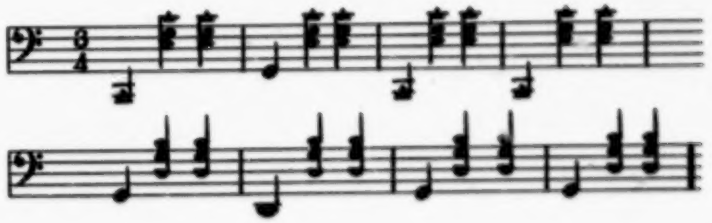
This lesson is concerned with composing music over a harmonic structure. It suggests composers, like short-story writers and artists, do not depend totally upon inspiration. Instead, like the architect, a design or scaffolding is constructed to act as the skeleton for the composition Of all musical compositions, dance music is probably the easiest to compose. This is because its form is symmetrical. Let us take a waltz, for example.

The shortest form of this dance consists of a subject of sixteen measures in length which is divided into two sentences of eight measures. These eight-measure sentences may also be subdivided into four-measure phrases. So to begin let us divide a piece of manuscript paper into sixteen measures, marking it off with commas into four-measure sections. At this point the expert would likely think of a pretty tune and harmonize it, but for this lesson, the surest way is to write the foundation first, for no matter how beautiful the melody is, it will be spoiled by a bad accompaniment. On the other hand, if the bass is correct, you may sketch even the most common-place tune above it and it will yield some aesthetic satisfaction.

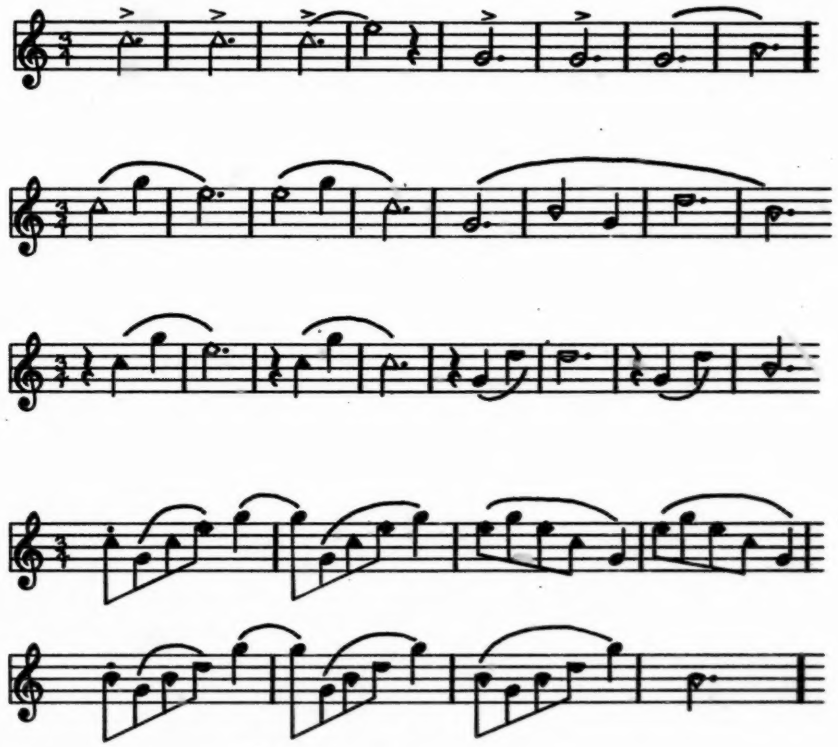
For example, look at Sullivan's Lost Chord. The first phrase of the melody consists of the same note repeated. In other words, the important thing about the melody is its foundation.

For the first four measures of our waltz, let us begin by using the tonic chord. For the second four measures, let us limit ourselves to the dominant chord. With these simplest of materials see what you can do.

First you may gain some variety by alternating the chords from the root position to an inverted form. This eight-measure pattern will represent our tonal scheme. With this symmetrical harmonic basis the melody which we will create will sound much more balanced. With the bass of the first eight measures, we have a choice of three harmony notes to manipulate for the first four-measure phrase melody and likewise for the second phrase. Of course, we have all the possibilities of rhythmic variation.

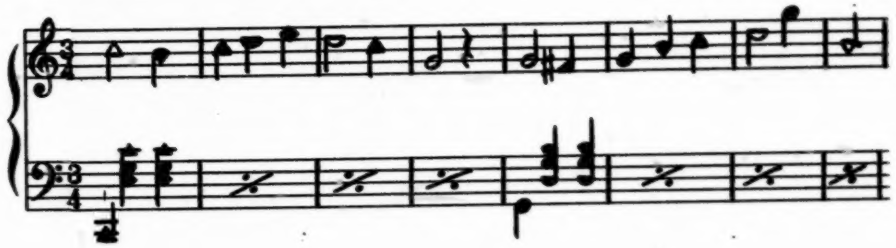


Here are some melodies which can be written above our prearranged accompaniment. You will want to invent others, considering the variety of rhythms with which three notes and their octaves may be used.

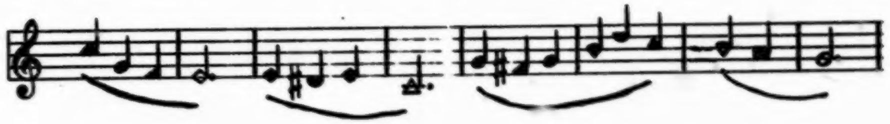


Now, having learned to mold these harmonic notes into melodies, it is easy to add auxiliary notes. These are situated either a tone or semi-tone above or below the harmony notes. In case the term, harmony note, is misleading, substitute the term, essential tones, for the chief melodic notes. Any note proceeding smoothly, that is, a semi-tone or a half-tone, above or below the essential notes may be placed in the melody whether this auxiliary tone clashes with the accompaniment or not.

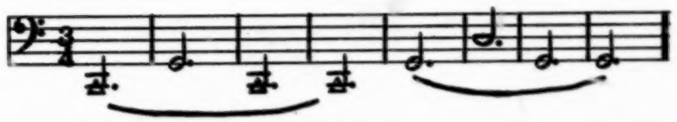
Here is an example, written above the accompaniment that was chosen.



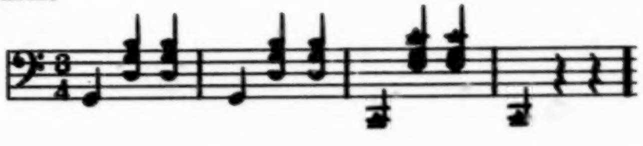
The f-sharp in measure five does not cause a feeling of modulation or change to another key; it is merely an auxiliary note below the essential harmony note and is considered as a passing tone back to a harmonic member. The auxiliary note below a harmony note is most commonly a half-step, but in some instances the auxiliary note may be a full-tone below the essential note. Here is an example: in measure 6, we have the auxiliary note a full-tone below the essential tone:



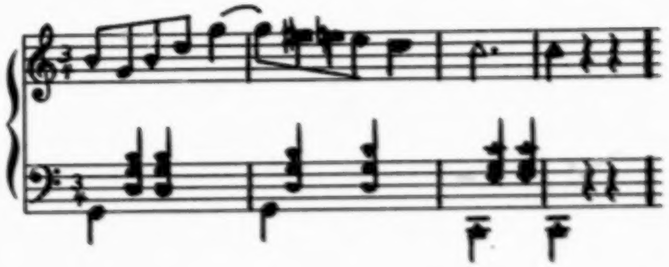
Now, if we should look at the bass line of our harmony, we might have a melody, which in musical language, is called a ground bass. Reduced to its simplest form, it would take this appearance:



So far we have done but eight measures of our sixteen-measure waltz. Now we must compose the second eight-measure sentence. The bass of the first four measures of this new sentence will remain the same as in the first sentence. The second four measures we shall change in this fashion:



Here is a melodic example that would fit this harmonic structure:



At this point, all the pieces of the puzzle are in place, and the student has sufficient background to make a waltz of sixteen measures. Of course you will want to write music in a nearly related key. In the early stages we should confine ourselves to three major keys: C, F, and G. When we have completed the sixteen-measure waltz in a nearly related key, the original sixteen measures must be repeated; thus, we have a symmetrical composition of forty-eight measures following the form: A B A.

With the possibilities of varieties of rhythm and numerous melodic combinations which seem almost inexhaustible, and with such a simple accompaniment for our skeleton, it will be simple indeed to invent an entirely new waltz.

As a further additional experience, take the left-hand part of some simple waltz and try to compose a melody for it, making it entirely different from the familiar melody which you are using.

Some of our great modern musical composers tell us they have treated the classical works in this way. It is indeed an excellent way in which to learn orchestration, for one may compare his work later with that of the original composer.

When the student begins to create melodies in ABA form, it is well to start and end the A section on the key tone. The B section should commence and end on a tone other than the key tone, thus giving a feeling of suspense and expectancy. The return to the key tone at the beginning of the final A section gives a feeling of coming home again--a feeling of finality.

The chordal outline for such a form would be to start and end on the tonic chord for the A section and start and end on the dominant chord for the B section.

Many students can form good first question and answer sections and then falter when it comes to continuing. Contrasts offer a prime device for continuity. One contrast could be the tone color; if one were writing for the orchestra, the tone color, say of the violin, could be used to contrast that of the 'cello. It is wise, therefore, to be aware of the element of timbre, even when writing for a single, simple line.

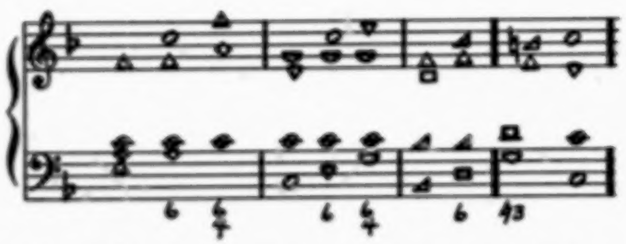
Out of the ABA form can grow the rondo form, which is ABACAD: in other words, A keeps returning but is separated by contrasting sections.

For certain cultures, music is expressed through a single line of melody. This is considered to be a completely satisfying experience. However, it is often a natural step forward to write for two voices in melodic lines. Here, two parts are said to be in counterpoint. In the early days of written composition, when the idea of the practice of the art was to write down an existing plain-song melody, or cantis firmis, to which composers would write another note for the accompanying voice, the two voices thus proceeded together at the same pace. A single part or voice added to another is called counterpoint, which in general means the combination of simultaneous voice parts, each independent, but all adhering to a uniform, coherent texture. Literally, the Latin, punctus contra punctum, means note against note.

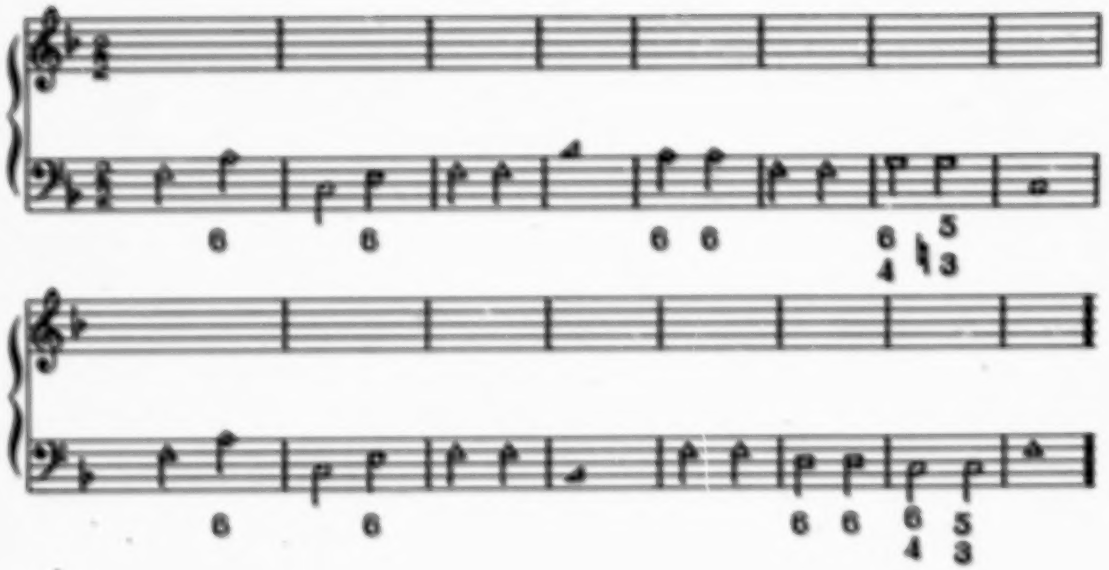
Counterpoint is the very essence of musical expression and quite frequently it is taken up before the subject of harmony.

HOW TO WRITE A CHORALE OR A HYMN-TUNE

In writing a chorale, that is, music to words, we shall again attempt to proceed from a harmonic background. For the simplest of church tunes, the minimum number of chords necessary are the tonic, including its three positions, the dominant chord in at least two positions, and the sub-dominant chord in at least two positions. For variety's sake, we shall introduce a modulation; that is, a temporary shifting from one key to another. The modulation chord that we will use will be the G7 chord which will modulate to a key of C.



Write out your chord progressions in a given key. For example, choose the key of F for this experiment and use the following pattern of chords as your scaffolding.



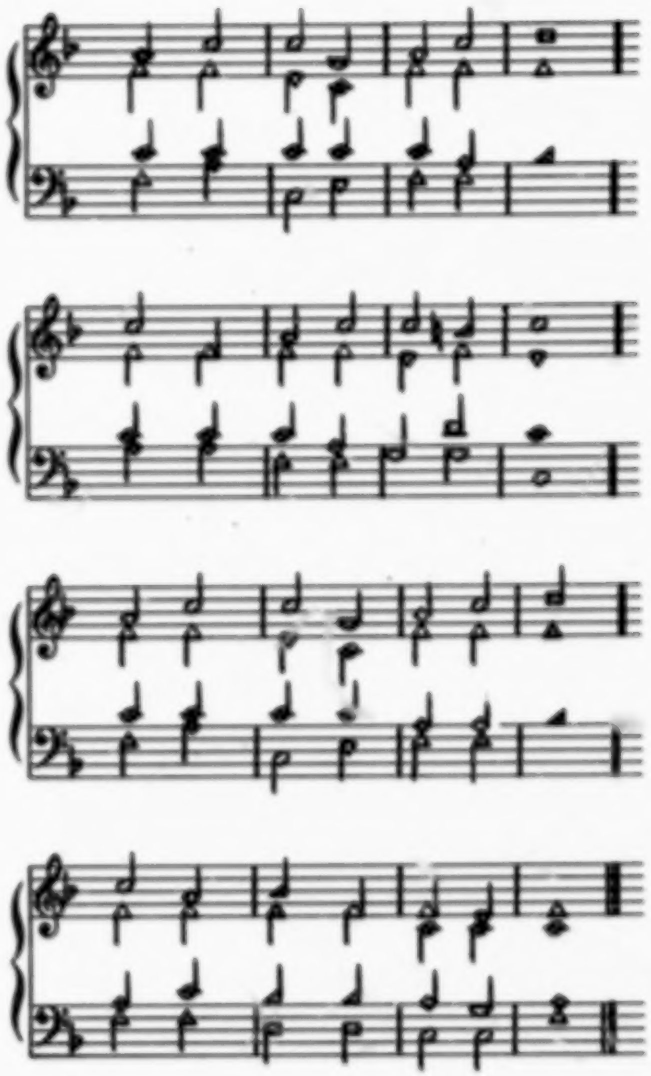
First, of course, you must choose a poem which you will set to music. Let us assume that the best rhythm for your poem is 2/2 meter. Most chorales have a change of chord for each essential note of the melody. However, since we have limited ourselves, we must be more economical. Let us begin by writing our figured bass. This four-measure sentence will account for two verses of our poem.

The third verse frequently is the same as the first, but the fourth again will need a different formula. Let us use the formula, tonic, subdominant, dominant, tonic for the fourth verse.

Now that you have written your bass and have fixed your chords, mold the rest of the notes to form the best melody you can under the limited circumstances.

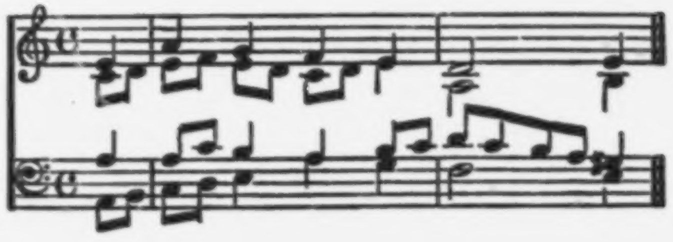
Good hymn-tune writers will likely write the alto and tenor parts at the same time that the melody is constructed, for a great deal of care has to be used to make singable voice lines and to avoid some of the harmonic pitfalls, such as consecutive intervals. Compare the bass with the tenor, and the alto with the soprano respectively. The tenor should also be compared with the alto and the soprano; and the alto with the soprano. False progressions, that is, consecutive perfect intervals, trouble those composers most who use faulty harmonic progressions, but since you have chosen your tonal scheme with care, difficulties will not likely appear.

Here is an example of a chorale in its simplest form:



Do you notice that just as poetry rhymes, so the music must rhyme? The most elementary form of musical rhyming is repetition of a phrase; so, phrase three rhymes with phrase 1. You will notice also how the cadence of phrase 2 rhymes with the cadence of phrase 4. Now, since you have used passing notes in writing a waltz, you will have no difficulty in inserting these into your hymn-tune. Passing tones are always safe between notes of the same chord which means between inversions and root positions. However, passing tones between different roots are in danger of causing forbidden consecutive progressions.

An obvious advantage, then, of using a simple texture, is that practice in writing passing tones grows naturally out of the material. Here is an example of our modified hymn-tune using passing tones:

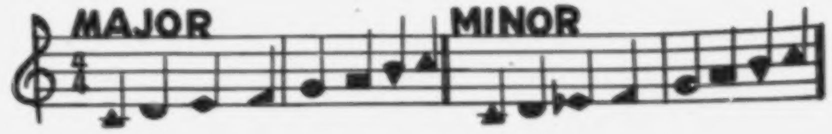


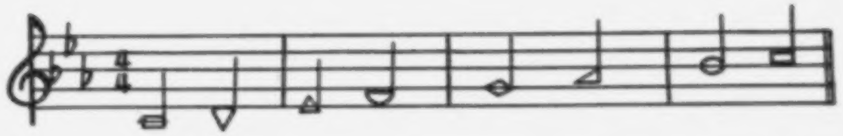
MINOR MODE

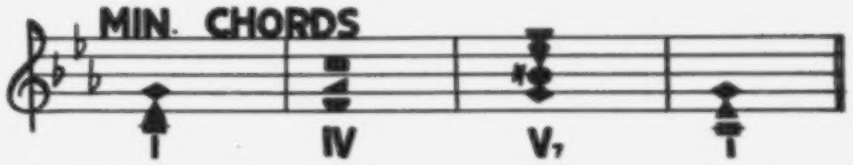
The word "minor" in music means smaller. It has reference to the interval between the first and third tones of the scale. If this distance is four semi-tones (C to E), the interval is called a major third. If this distance is but three semi-tones (C to e-flat), the interval, being "smaller," is called a minor third.

In writing minor tunes, it is not usual to write the minor tonality by lowering the third tone of the major scale, however. Minor tonality is ordinarily obtained by finding in the major scale a place where this identifying minor third occurs naturally. For example, if you start a scale on la, the scale will be a minor scale because the distance between la and do is a small third--or minor third.

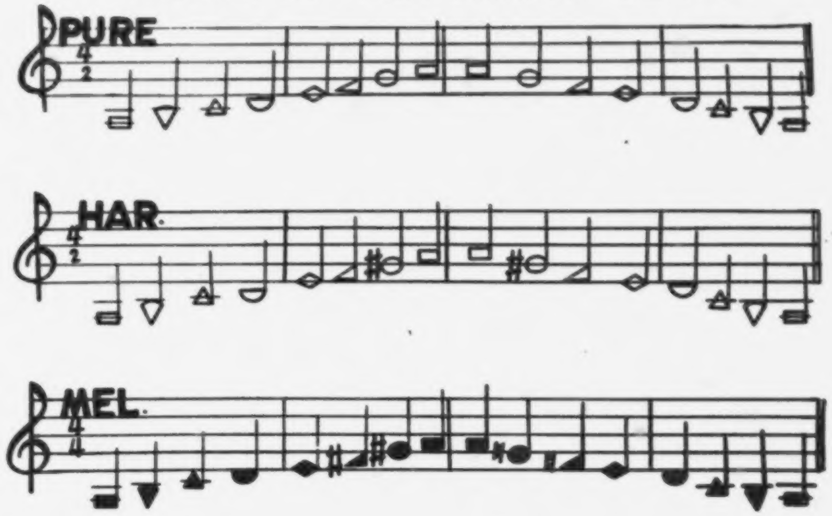
Of course, one may make a major key into a minor key with the use of a change in key signature. If you add three flats to any key signature, the major tune will become minor. The effect is to make do become la in another key.







FORMS OF THE MINOR SCALE



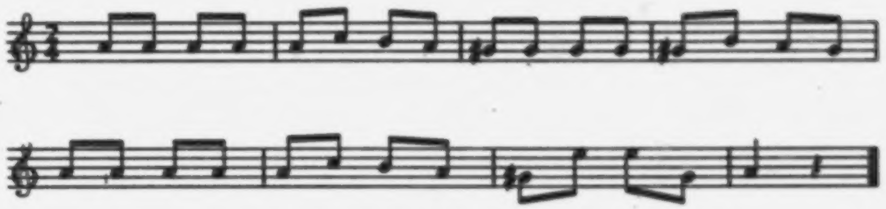
The minor scale appears in three forms: (1) pure--or natural minor--which merely begins on la of a major scale and proceeds upward to its octave; (2) harmonic minor which, by raising the seventh tone a half step, sounds more complete because it has the cadence feeling--a feeling of closure (like the major scale, its seventh and eighth tones are close together); (3) the melodic minor which raises both the sixth and seventh tones ascending but descending in the natural minor form.

It is important to know whether a piece is major or minor in order to harmonize it properly. Ordinarily, musicians can identify the mode merely by looking at the starting tone. La, as a starting tone, is usually minor, while tunes starting on do are usually major.

Are all of the following tunes in the minor mode?

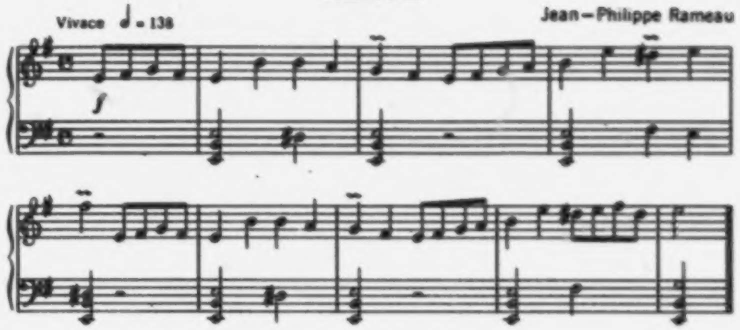
Lovely Minka

Russian



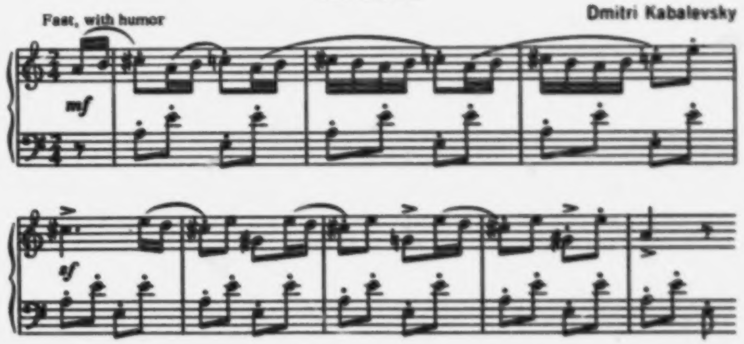
Tambourin

Jean-Philippe Rameau

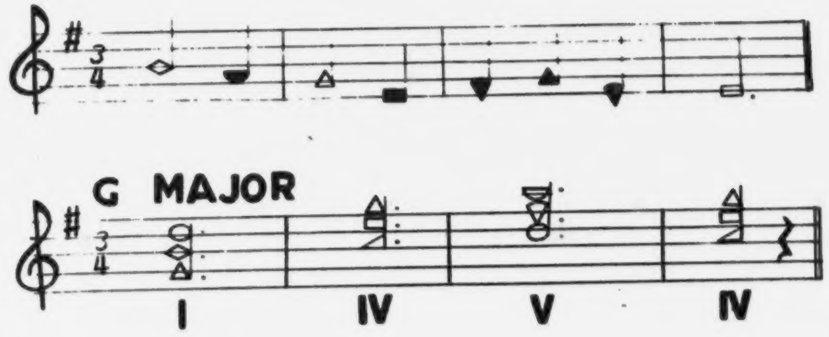


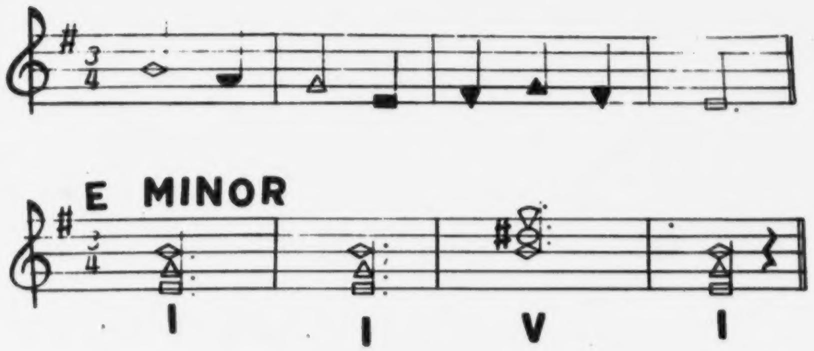
The Clown

Dmitri Kabalevsky



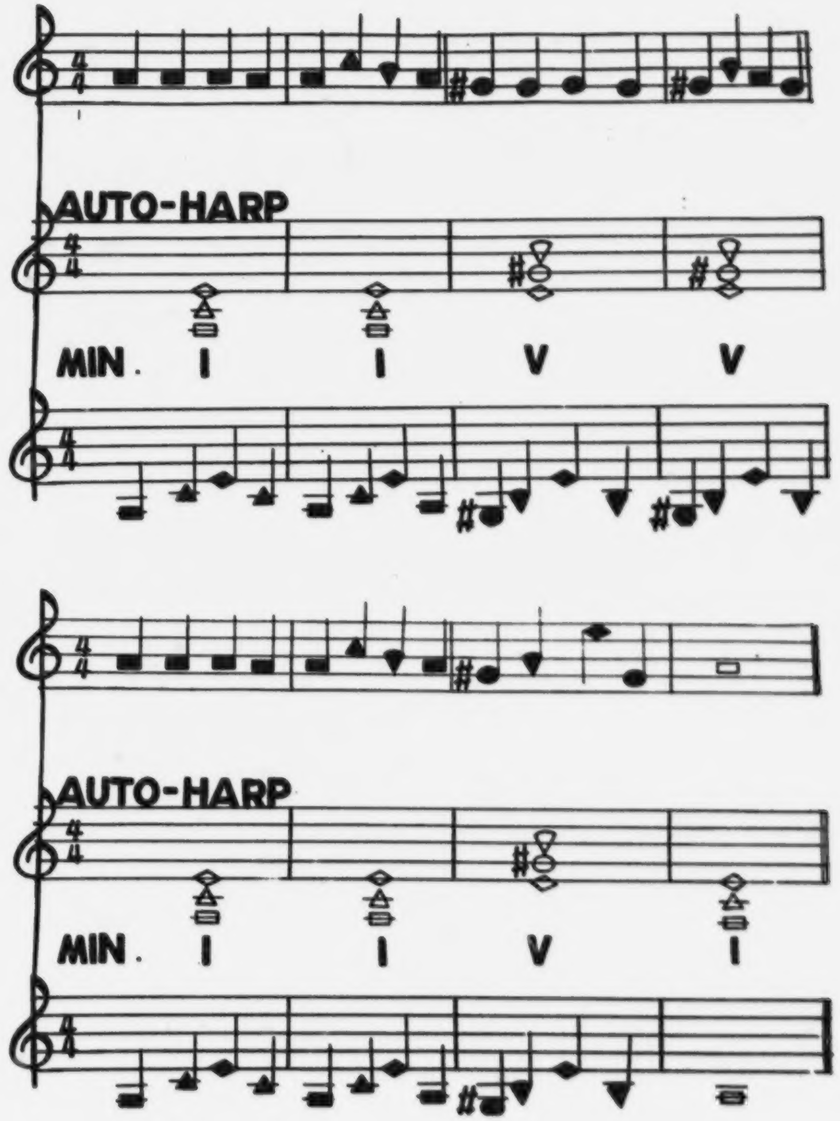
Sometimes minor tunes do not start on la, but they still usually end on la, the key tone. Listen to this church tune harmonized in major and in minor, as an illustration of the need for establishing the mode before appropriate chords may be chosen.



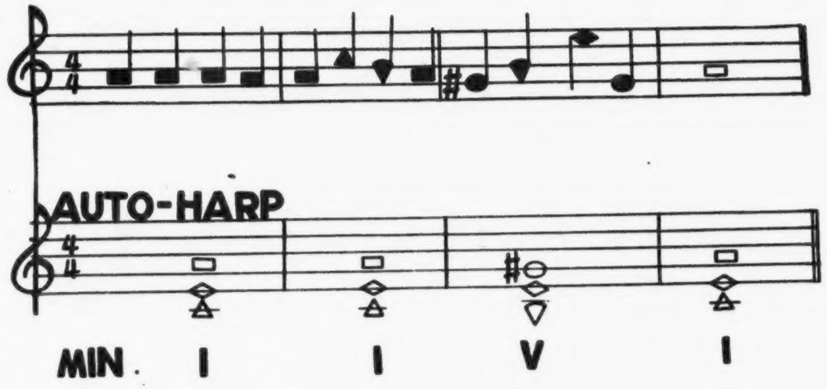


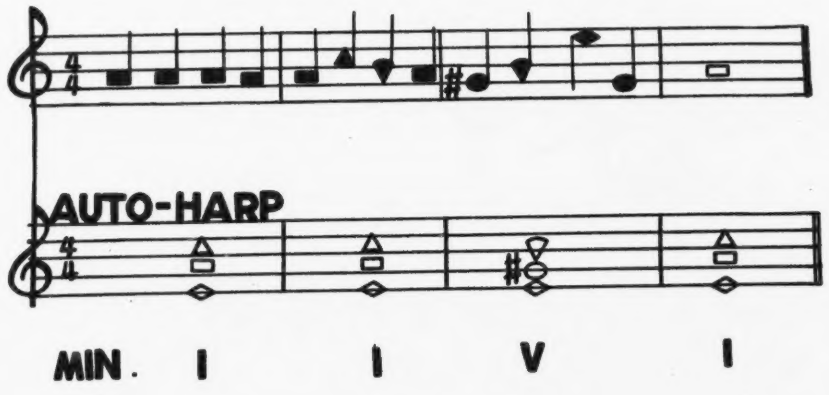
Here is an example of a minor song harmonized with minor chords in their root position.

"Lovely Minka"



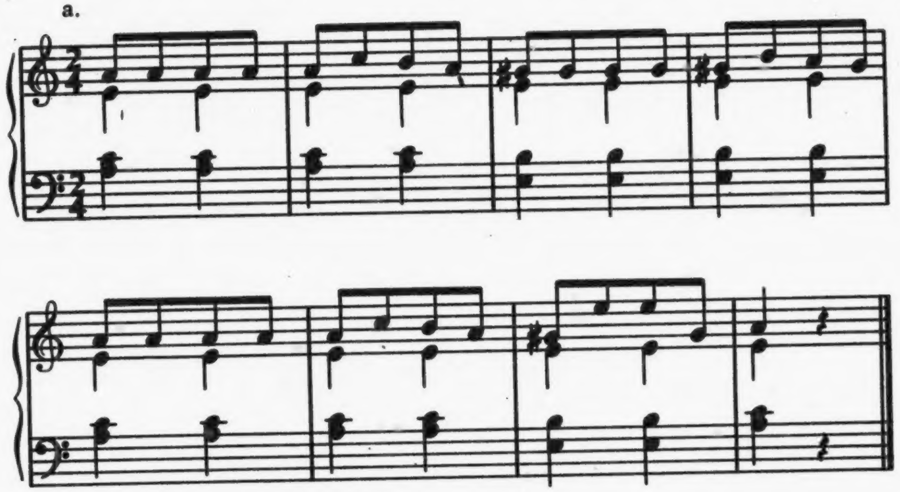
Of course, minor chords may be inverted as well as their major counterparts.



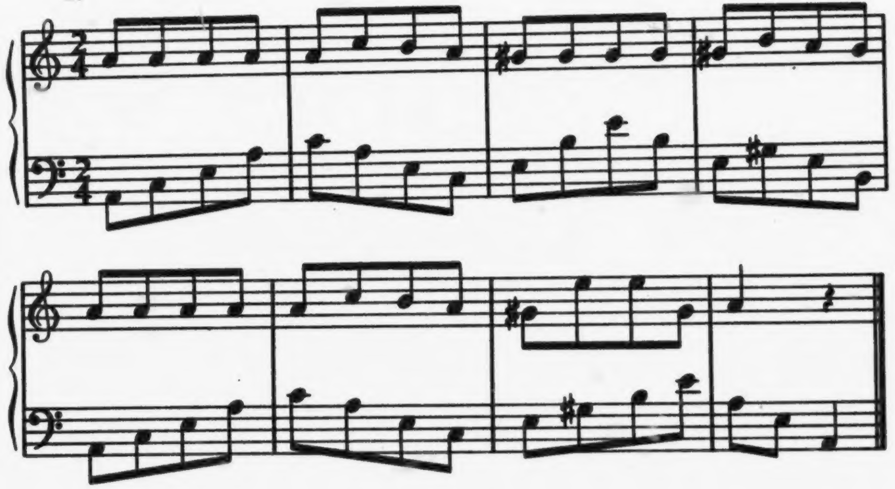


Here is "Lovely Minka" harmonized in piano form in two ways. This illustrates the difference between a homophonic texture and a polyphonic texture.

a.



b.



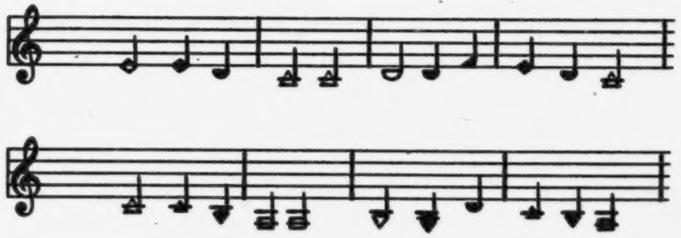
MAKING MELODIES IN THE MINOR KEYS

In the minor keys, melody-making may well be patterned after the discoveries the student has made about melody-making in the major keys: (1) Phrases will have to be balanced and made clear to the ear by the use of cadences; (2) The same degrees of the scale will be used to form the half cadence and the full cadence; (3) Passing tones and auxiliary tones will be used in a similar way and will be used for the same purpose; (4) The same forms--binary, or two-phrase tunes, and ternary, or three-phrase tunes--are effective in minor as well as in major.

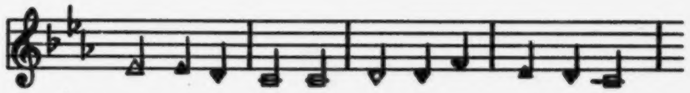
In beginning tune-making in minor, the student may well limit the range to five tones: la-ti-do-re-mi. Use extremely simple rhythms at first so that the tunes may be made varied and interesting through the pitch possibilities.

Start with a tune which has been composed in major and change it to minor. It can be done in any of three ways:

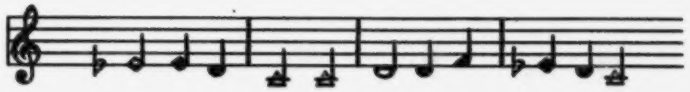
1. By starting the tune down a step and a half--an interval of the minor third lower:



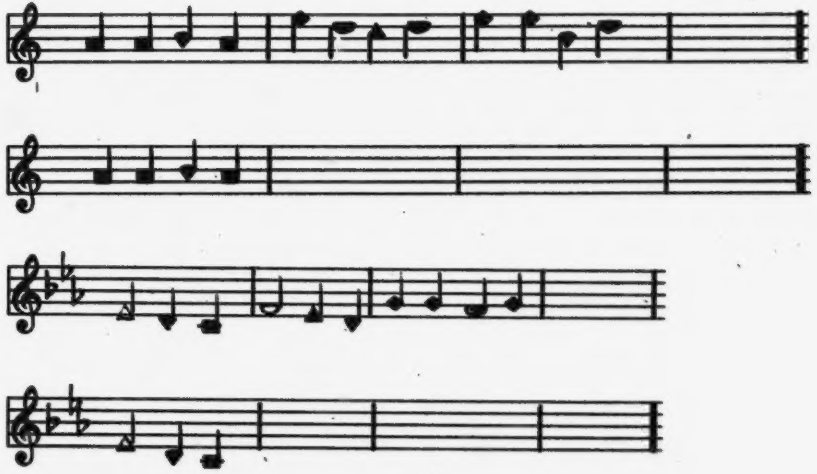
2. By changing the key signature, adding three flats to the present signature:



3. By using accidentals to lower the third tone of the scale one half step:



The following melodies stop just before the end of the first phrase--at the point where the half cadence is expected. Complete the melodies and sing them to the class. Of course, you will finish the first phrase by writing a half cadence and then writing an answer, or record, phrase more of less like the first phrase, but ending on the key tone with a perfect cadence.

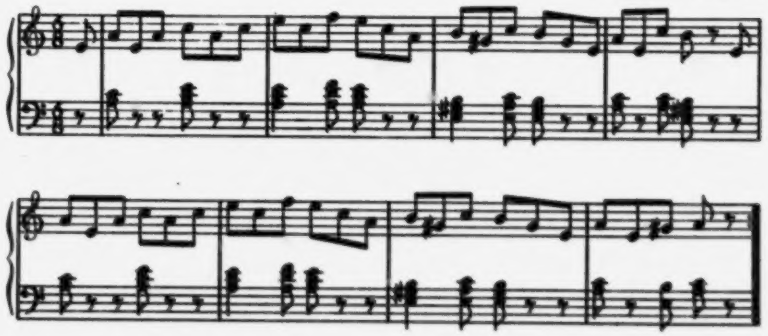


As you play your melodies preparatory to harmonizing them, you will hear that in the minor key, as in the major, auxiliary notes help you cover all the sounds which belong to the key.

You may now wish to compose a song built around chord skips. Below is an illustration of a chord line melody, based upon the minor tonic chord, la-do-mi, with an occasional V chord used to give onward movement.

The Wild Horseman, Op. 68, No. 8

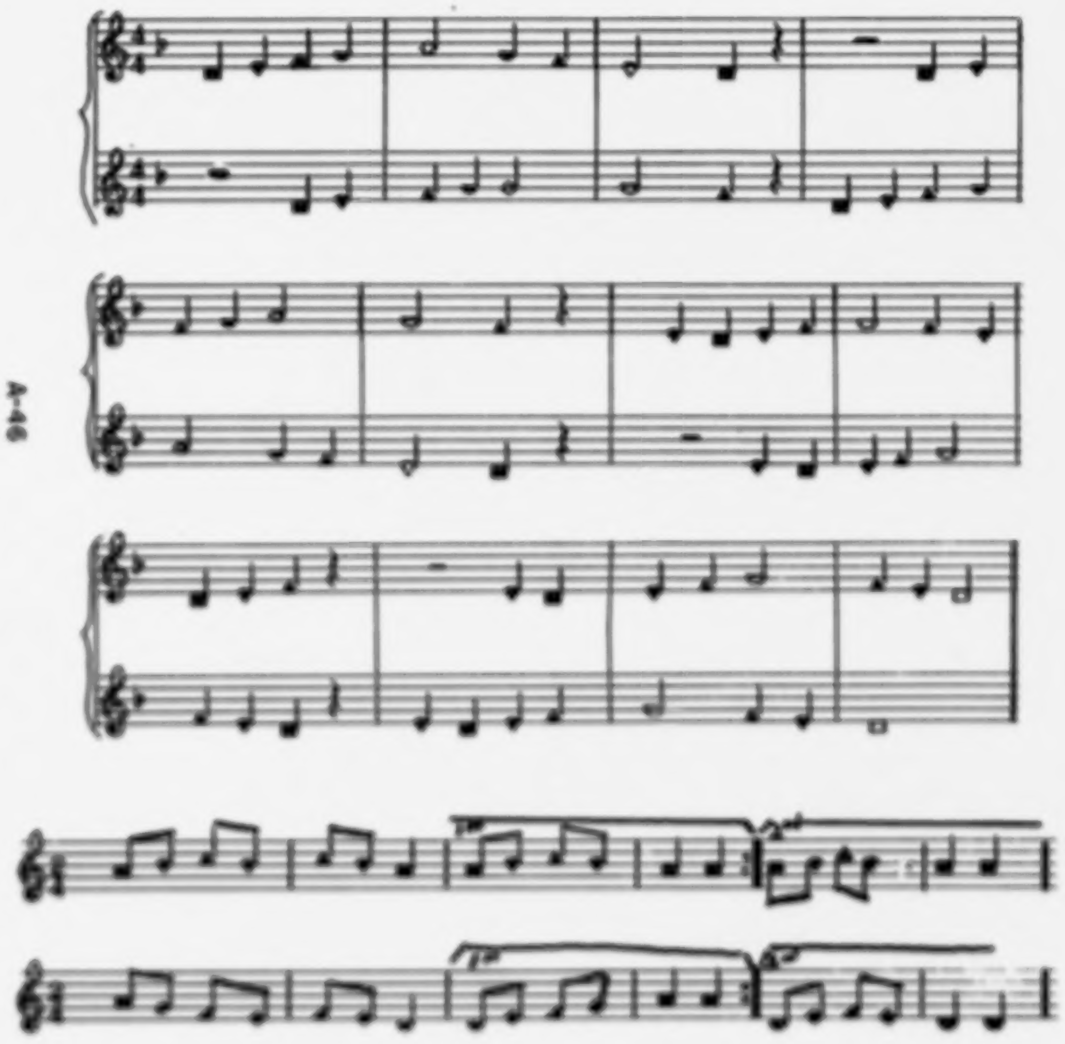
Robert Schumann



Below are two Hungarian canons. With only a melodic variation, you are able to increase the interest of melodies, so you may make equally good effects by varying the rhythms.

TWO HUNGARIAN CANONS

Kodaly

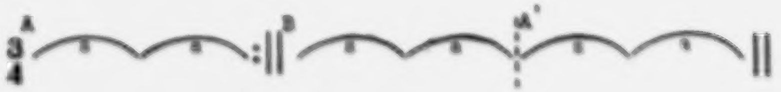


MINUET WRITING

Of the many types of dance music composed throughout history, one of the most popular was the minuet. The minuet originated in France during the Baroque Period (1600-1750) and was usually performed as part of a group of dance pieces of different meters and tempos. The entire group of dances was called a "suite." As the minuet became more stylized (played, but no longer danced), composers from other countries began to imitate it in their own manner. Because of this, the minuet eventually became a classic form of "listening" music.

Traditionally, the minuet is written in 3/4 meter and is performed in a moderate tempo. The more modern minuet of the Classic Period (1750-1825) may be described as comprising of three parts: the first part consists of the main musical idea (melody or theme); the second part consists of a varied or contrasting idea; and the third part consists of a restatement of the first idea. Alphabetical letters are sometimes used to describe the relationship of the three parts, such as ABA.

In addition, the melodic structure of each part is frequently of the statement-answer type. Below is a diagram of the three parts and their phrase construction:



Sometimes the first A part is repeated before going on to B. In this case, a dotted double-bar will be found at the end of the A part (as above). In other minuets, both A and BA are repeated.

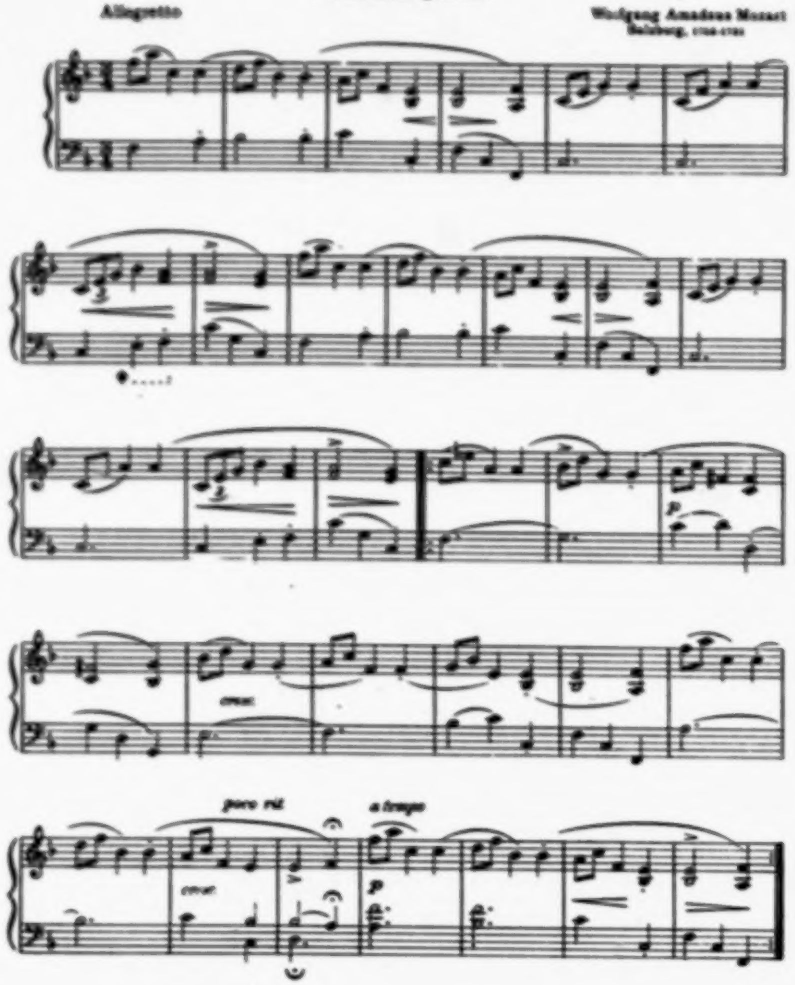
In the Classical Period, minuets were written for both solo keyboard and symphony orchestra. Two of the leading exponents of this form during this time were Haydn and Mozart. When these two composers wrote minuets, they would appear as contrasting movements for larger musical forms, such as the keyboard sonata or the symphony.

Look at the minuet on the following page and try to follow the three musical ideas as they unfold.

6. MINUET in F

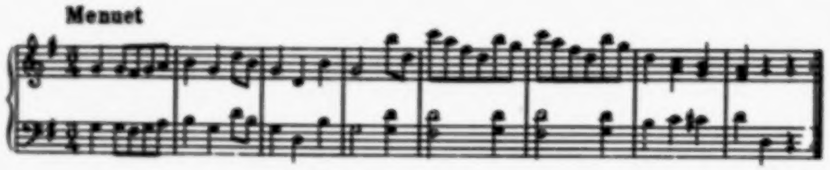
(Written at the age of six)

Wolfgang Amadeus Mozart
Salzburg, 1756-1791



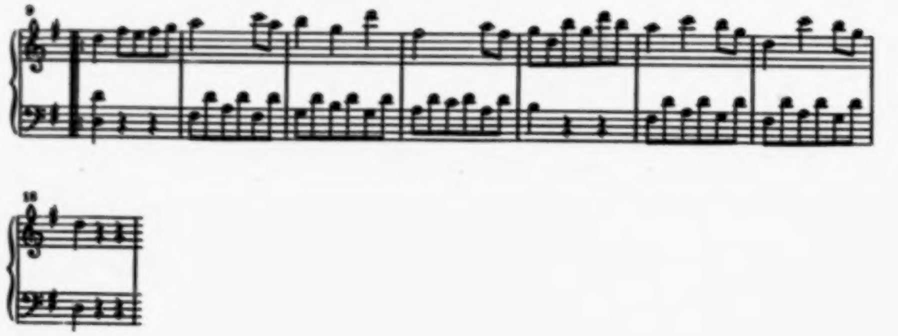
There are some additional aspects of the minuet that you should be familiar with in order fully to understand this form: one has to do with tonality, another with texture. Examine the minuet below, which is from a Haydn keyboard sonata, to see how unity, variety and contrast were achieved with these two elements. This example shows the A part of the minuet.

Haydn Minuet, A Part



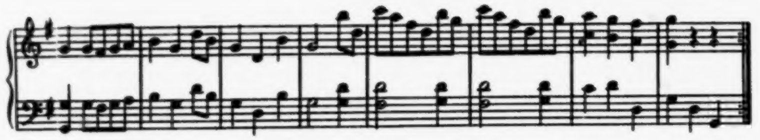
Notice that the end of the A part sounds incomplete: it wants to go on to another part. The reason for this is that the tonality--the tonal center or key--of G Major has been shifted towards the end of the second phrase to D Major. In other words, the A part begins in G Major but ends in D Major. In order to end in D Major, Haydn merely introduced a C# into the seventh measure in the accompaniment. The "feeling" is one of incompletion because the final D Major triad sounds like a dominant chord to G Major. Now look at the B part.

Haydn Minuet, B Part



The B part begins on a D Major chord in the ninth measure; however, in the tenth measure notice that Haydn uses a C♮ in the upper melody rather than a C#. It is now back in G Major. But again, Haydn ends on a dominant chord (D triad) in G Major. It appears that Haydn wants the listener to think the B part is in D Major when it is actually in G Major. What about the third part--the return of A?

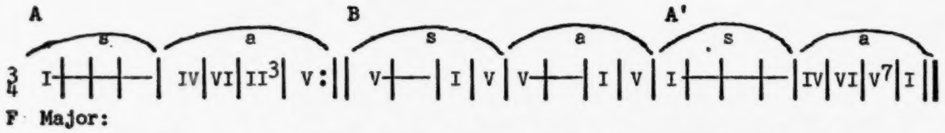
Haydn Minuet, A' Part



If you recall the original A part, you probably will notice that A' was restated exactly except for the last two measures (23 and 24). What is different here? Namely, the harmony. The final chord of measure 24 is a tonic chord in G Major rather than a dominant; thus, the minuet sounds complete when A' terminates with a V-I cadence in G Major.

To summarize, Haydn attempts to contrast each part by moving to related tonal areas to G Major. The following diagram illustrates this relationship. (The harmonies between the first and last measures of each part have been omitted.)

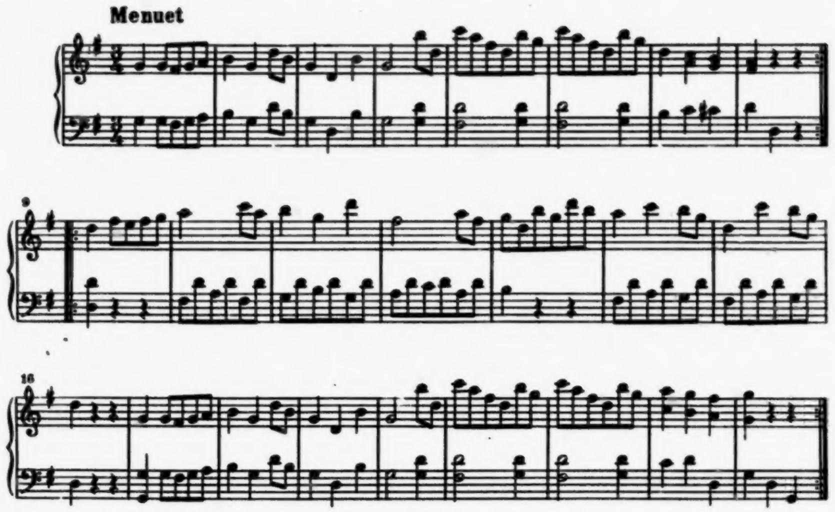
Related Tonal Areas of Minuet



The B part, then, is composed so that it "feels," or sounds, like D Major in order to contrast the G Major feeling of the two outer parts, A and A'.

How else does Haydn achieve unity, variety and contrast? Did you notice that the texture changed in each part? Now examine the accompaniment in relation to each melodic phrase.

Minuet



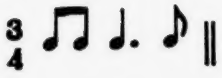
In the first A part, the statement phrase is presented in octaves while the answer phrase is accompanied by solid chords. In B, on the other hand, the entire melody is presented over a series of broken chords (Alberti bass). Finally, the returning A' part presents the same texture as in A. The changing texture of each part thus gives interest (variety and contrast) to the minuet as a whole.

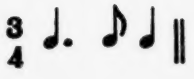
What about the motivic construction of the minuet? Briefly, the rhythmic motive of 3/4 | ⊓⊓, and the pitch motive of a third interval are the main ideas used throughout. The main rhythmic motive is stated exactly at the beginning of each part for unity but is developed differently in B than in A and A'. The main pitch motive is developed more freely but is nevertheless emphasized throughout.

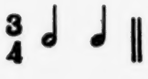
Using the Haydn Minuet as a model, now attempt to compose your own keyboard minuet. The following procedure is recommended as a guide:

1. Design a statement-answer type rhythmic structure of eight measures in length. This will be used for parts A and A'. You may wish to choose one of the rhythmic motives printed below, or composer your own. Use the

worksheet idea to develop each phrase:

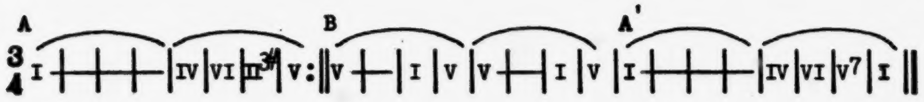






2. Next, design a second statement-answer type rhythmic structure of eight measures to be used as a contrasting B part. If you use the same motive, be sure that you develop it differently than in A and A'.

3. Use the harmonic progression given below as the basis for your pitch motives and design melodies to fit your rhythmic structures:



F Major:

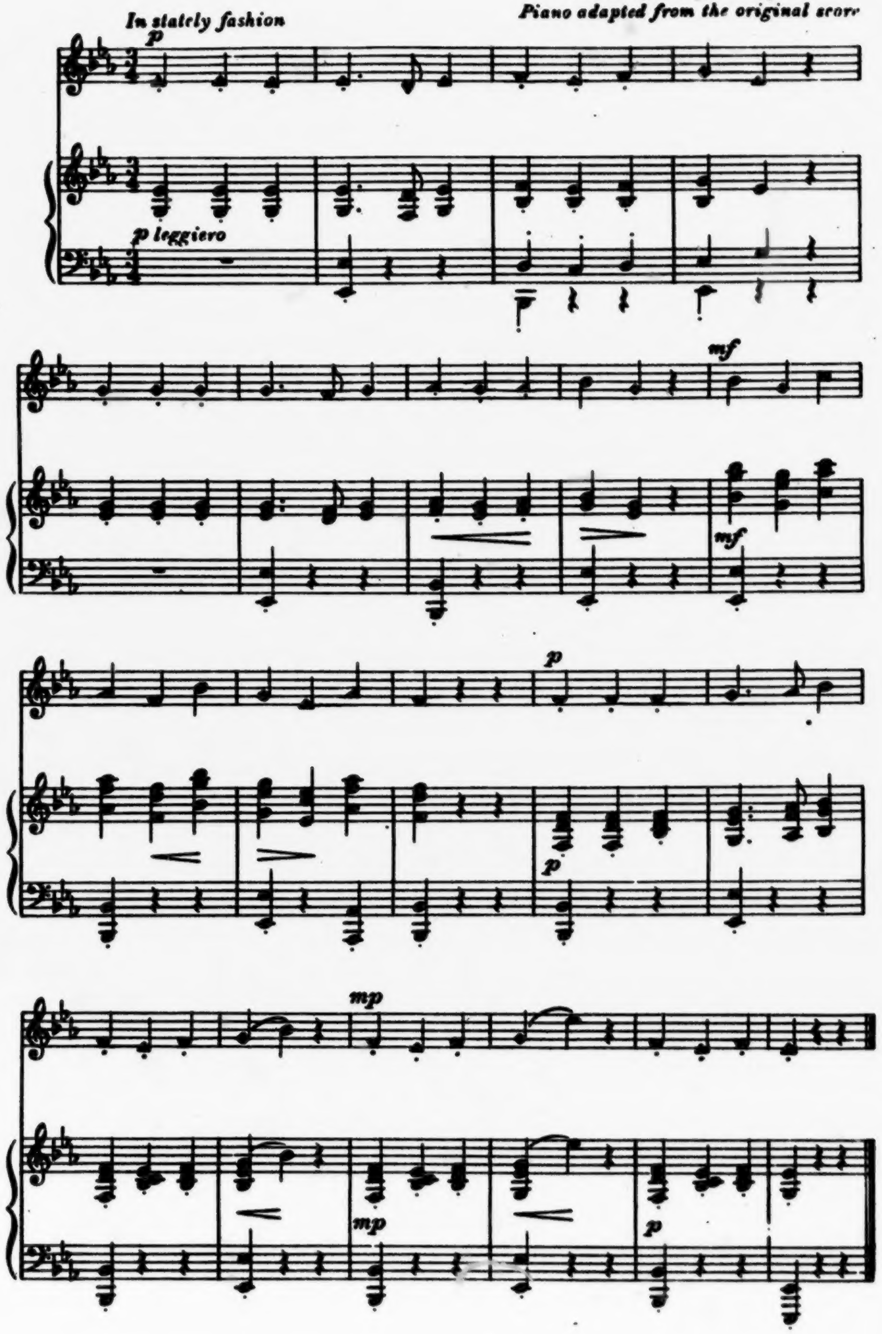
Remember that the A and A' melodies may be the same except for the last two measures. The B melody, however, should contrast. One way to write melodies is to sketch out ahead of time the beginning and ending pitches for each phrase. This will give you a picture of the general direction that each melody will take.

4. When the melodies for each part have been completed, they should be written so that an empty staff is left underneath for the accompaniment.

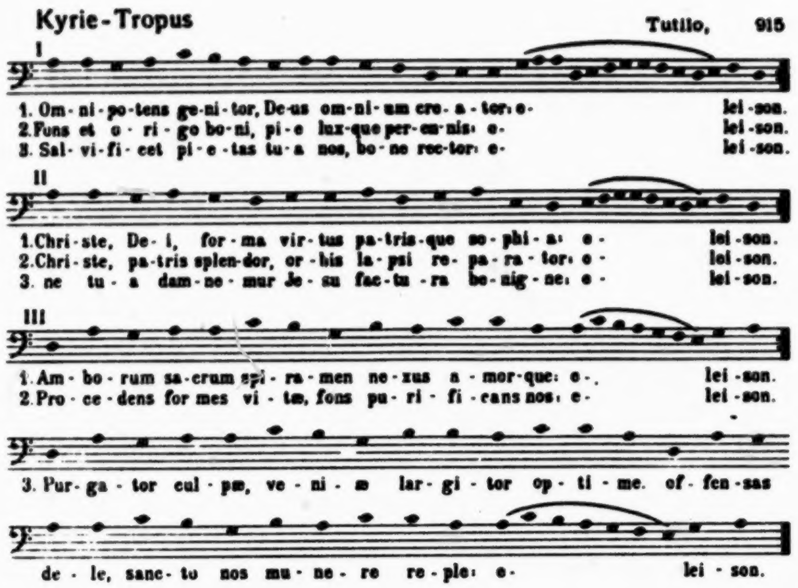
5. Finally, you must determine the kind of texture (accompaniment) that is appropriate for each part. You may wish to use one texture for an entire part, or to mix textures within a part. In the Haydn Minuet, for example, A and A' consisted of two textures while B only used one throughout. A different plan might be to use one texture for A and A' and two textures for B.

Minuet

Wolfgang Amadeus Mozart
in The Marriage of Figaro
Piano adapted from the original score

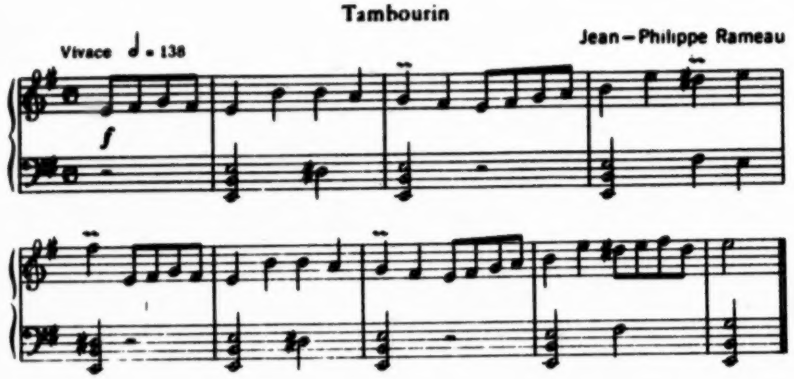


In music there are some words which characterize, in a rather broad manner, these musical textures: monophonic, homophonic and polyphonic. They all finish with the syllable "-phonic," meaning "relating to sound." "Mono-" means one, or single; so, a monotone is a sound at a single pitch. Likewise, monorail (one of those new-fangled trains that run along on only one rail) and monophonic, a single melody without any accompaniment. You will remember your exercises with Gregorian chant which has only a single melodic line and is an example of a monophonic texture.


Kyrie-Tropus
Tutilo, 915
I
1. Om-ni-po-tens ge-ni-tor, De-us om-ni-um cre-a-tor: e- lei-son.
2. Fons et o-ri-go bo-ni, pi-e lux-que per-en-nis: e- lei-son.
3. Sal-vi-fi-cet pi-e-tas tu-a nos, bo-ne rec-tor: e- lei-son.
II
1. Chri-ste, De-i, for-ma vir-tus pa-tris-que so-phi-a: e- lei-son.
2. Chri-ste, pa-tris splen-dor, or-bis la-psi re-pa-ra-tor: e- lei-son.
3. ne tu-a dam-ne-mur Je-su fac-tu-ra be-nig-ne: e- lei-son.
III
1. Am-bo-rum sa-crum spi-ra-men ne-xus a-mor-que: e-. lei-son.
2. Pro-ce-dens for mes vi-tæ, fons pu-ri-fi-cans nos: e- lei-son.
3. Pur-ga-tor cul-pæ, ve-ni-æ lar-gi-tor op-ti-me. of-fen-sas
de-le, sanc-to nos mu-ne-re re-ple: e- lei-son.

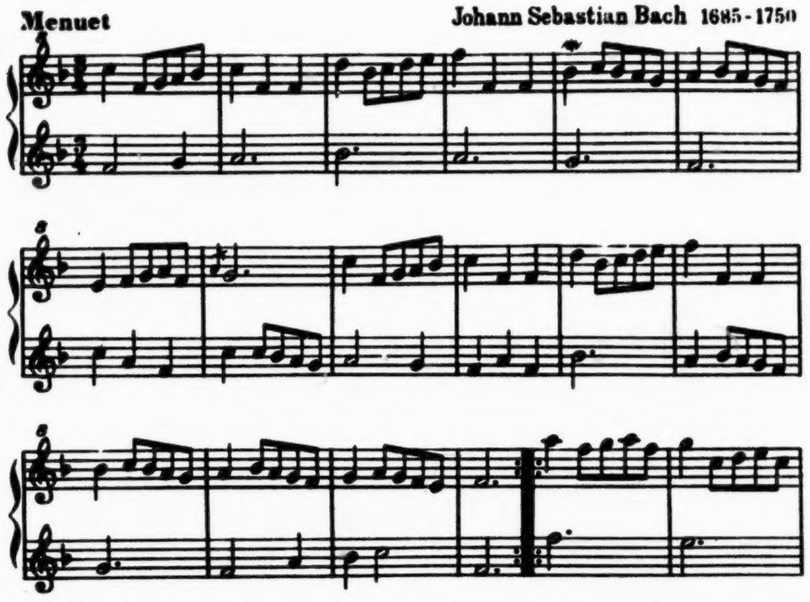
In homophonic music there is a single melody which is obviously predominant in the horizontal direction, and an accompaniment which is rhythmically coincident with the melody to a great extent and subservient to and dependent on the melody. This accompaniment will consist of chords or intervals laid out in such a way that you are more aware of its verticality than of its horizontal flow.

Here is an example:



In polyphony ("poly-" meaning many sounds or more than one sound) two or more melodies of equal prominence are sounding simultaneously. The emphasis, as in monophony, is on the horizontal flow.

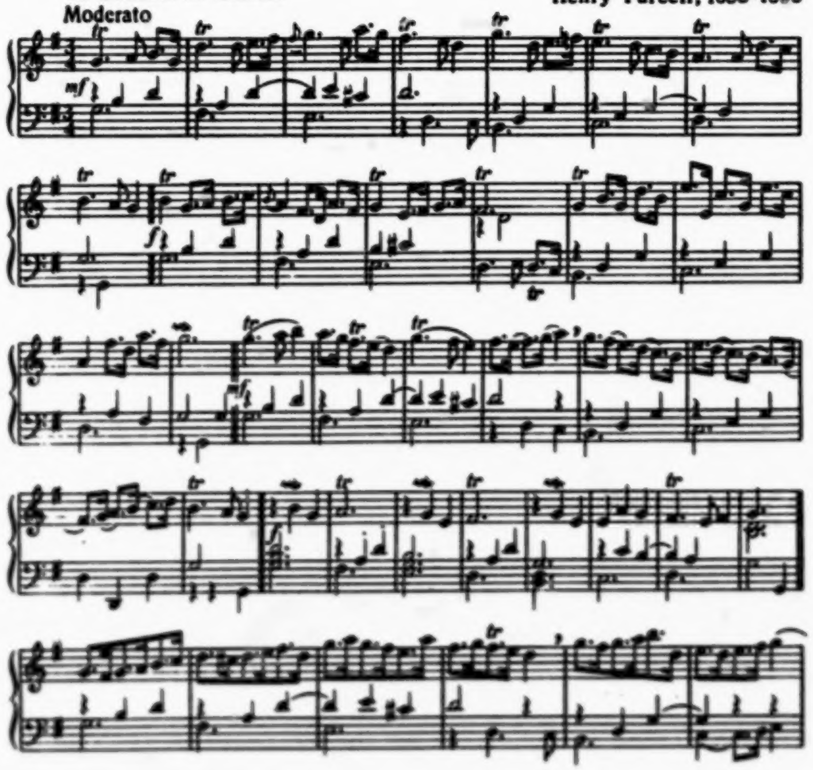
Below is an example of two-voice polyphony. Notice how the rhythm and shape of each one contrasts. For instance, sometimes the bottom melody has only one or two notes to a measure while the top one has a number of eighth notes.



Here is an example of three-voice polyphony:

A Ground in Gamut

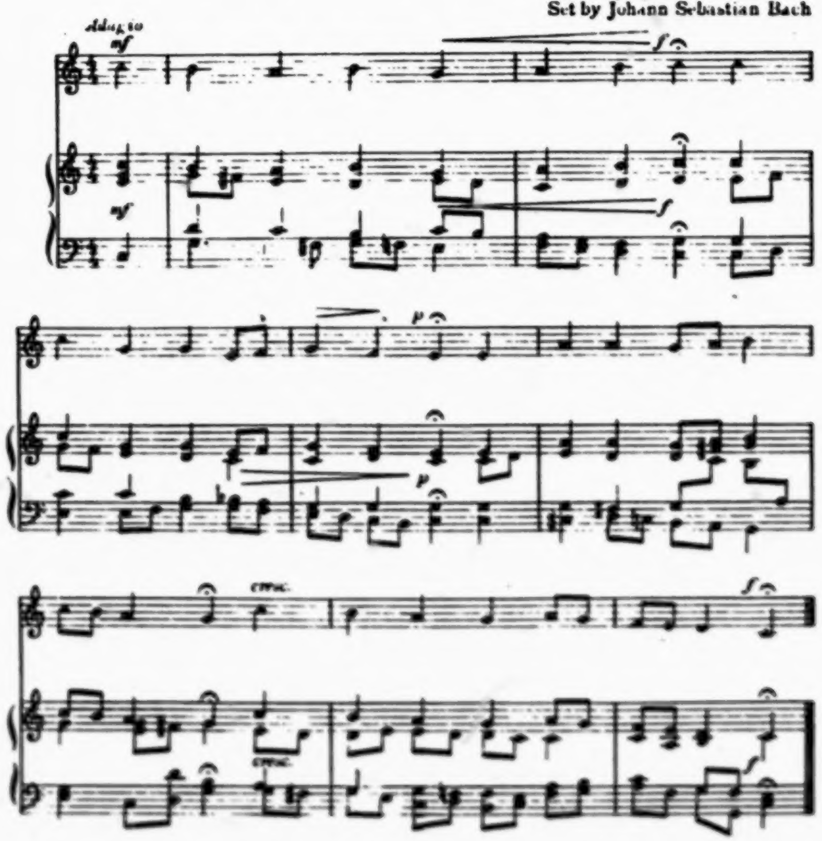
Henry Purcell, 1658-1695



Here is an example of four-voice polyphony. If you will look at the lines of notes at the bottom, you will notice that even a melody so hidden beneath all the other melodies can still have a life of its own.

From Heaven Above (Christmas Chorale)

Melody by Martin Luther(?)
Set by Johann Sebastian Bach

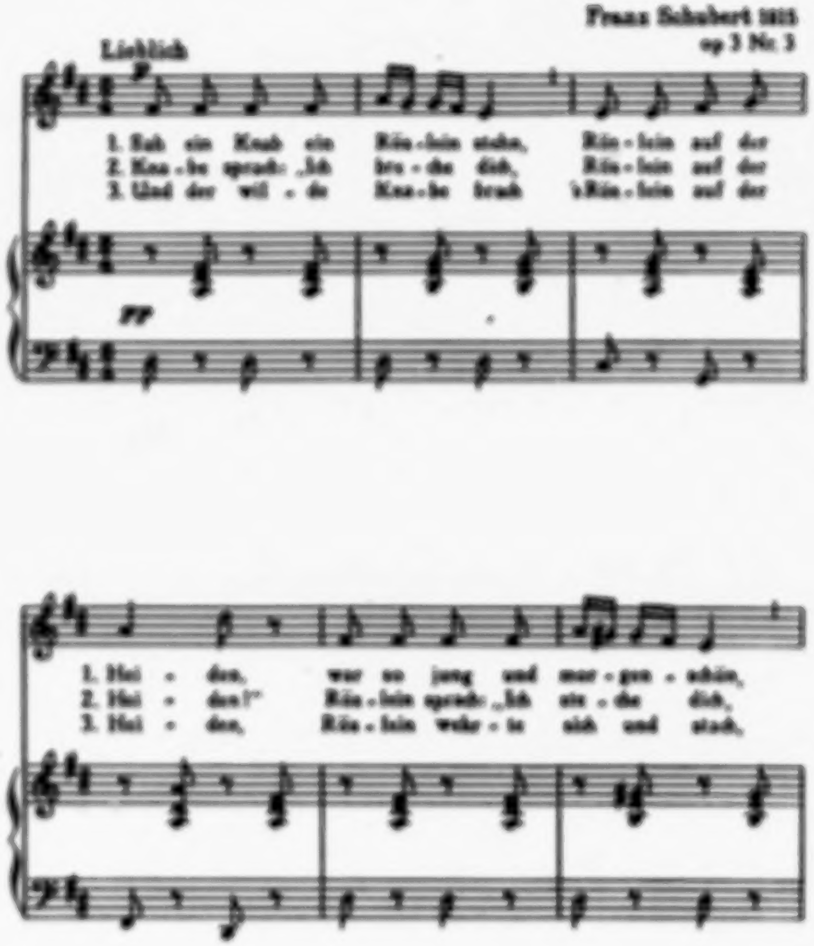


THE HOMOPHONIC STYLE

Presented in its most unambiguous form, the homophonic style consists of a horizontal element, the melody, in which lies the main interest of the music, and a vertical element, the accompaniment, which exists wholly and solely to enhance the effect of the melody.

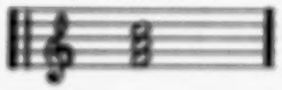
This fragment from a Schubert song is an example of the homophonic style:

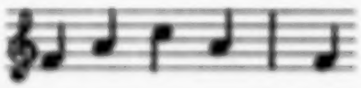
Heidenröslein (Joh. Wolfg. von Goethe)


Franz Schubert 1815
op 3 Nr 3
Lieblich
1. Sah ein Knab ein Rös-lein stehn, Rös-lein auf der
2. Kna-be sprach: „Ich bre-che dich, Rös-lein auf der
3. Und der wil-de Kna-be brach 's Rös-lein auf der
pp
1. Hei-den, war so jung und mor-gen-schön,
2. Hei-den!" Rös-lein sprach: „Ich ste-che dich,
3. Hei-den, Rös-lein wehr-te sich und stach,

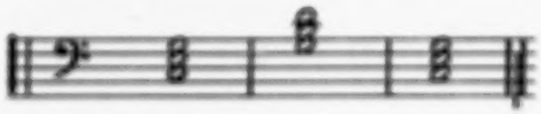
The accompaniment alone, while not without shape, is not very interesting music compared to the melody. When the two are heard together, one involuntarily focuses attention upon the melody and the accompaniment is heard only insofar as it punctuates and gives weight to one aspect of the melody or another. At any instant the accompaniment to this melody by Schubert consists of a single harmony expressed in a chord.

No matter from what style or period homophonic music comes, the harmony of the accompaniment can be expressed in one of two ways: (1) all the notes of the harmony can be played simultaneously, in a chord, or (2) all the notes of a harmony can be played consecutively:

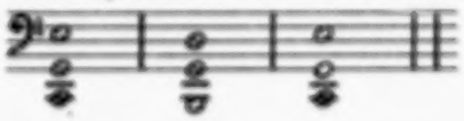
1) 

2) 

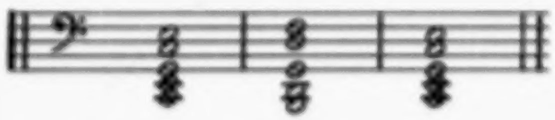
Examine the possibilities of the first category, an accompaniment consisting of chords. Suppose you were to use a 4/4 meter, C major, and a harmonic progression of I, V, I, changing each measure. The simplest thing you could do would be to write a chord which is played only when the harmony changes:



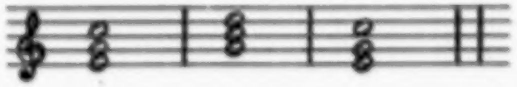
Of course this chord can be laid out in different ways. For instance, the notes can be spread out over a wide range, in the open position:



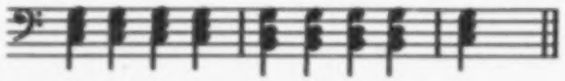
or notes could be repeated in various octaves to create a thicker sound:

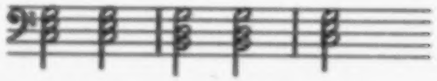


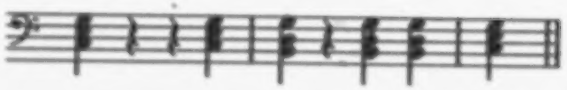
or the chords could be played low, as in the last three examples, or high as in the following:

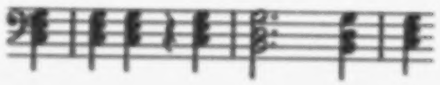


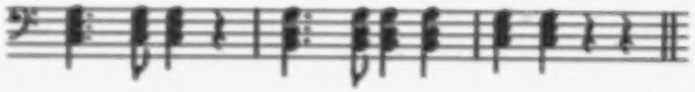
The chords also could be repeated to create any number of regular or irregular rhythmic patterns, as in the following:



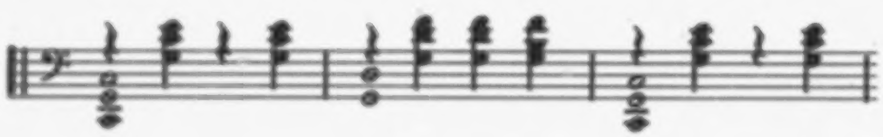








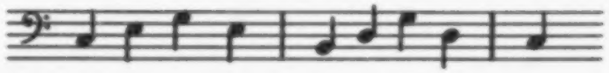
You can combine different timbres and rhythms in the one accompaniment:



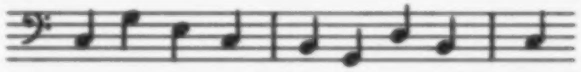
The possibilities are infinite.

Now to the second category where the notes of the harmony are played one after another, consecutively, instead of simultaneously. Again working from the simplest possibilities to the more complex, let us use a I, V, I progression in 4/4.

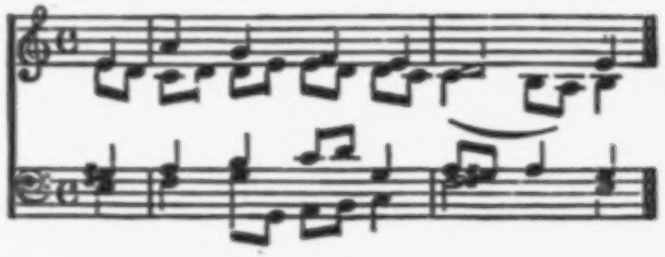
In the example below, the notes of the chords are played one at a time in a very simple rhythm and in a very simple pitch pattern:



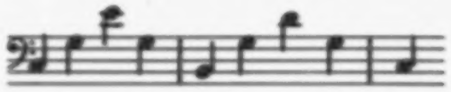
In this example, the pitch pattern is different in each measure, but the rhythm is the same:



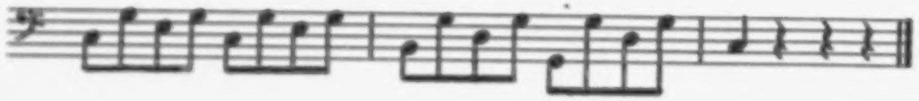
Notice that the effect of this accompaniment is more melodic than the effect of the first one. It may be that this accompaniment would, as a result, draw more attention to itself and could even, in some circumstances, become nearly equal in importance to the tune it accompanies. In this case the texture would be more polyphonic than homophonic.



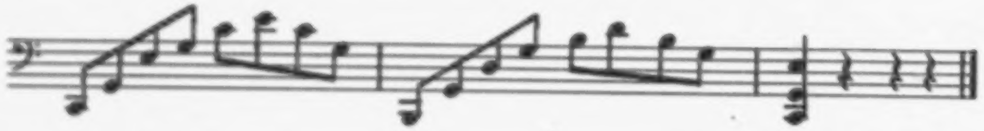
In the next example, the notes of the chords are spread into a more open texture by being placed further apart in pitch:



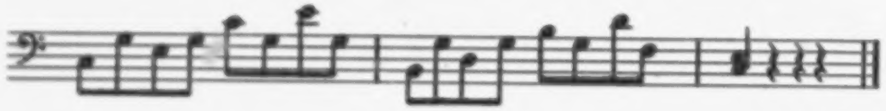
The next illustration shows a style called the Alberti bass which occurs very frequently in the works of composers who lived at the time of Mozart and Haydn. Notice that the even-numbered note is always at the same pitch--in this case a "C"-and that the chord is in a closed position:



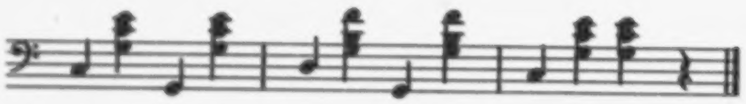
The accompaniment pattern shown below flows up and down over a range of a couple of octaves. Notice the smooth-flowing sound as compared to the busy sound of the Alberti bass.



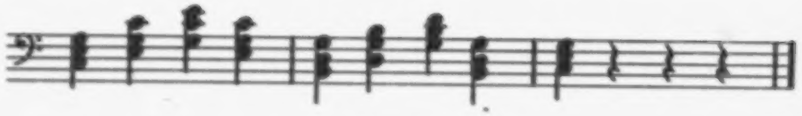
This example shows again the effect of adding a melodic feeling to a pattern (which in many ways is very similar to the pattern in the above illustration). You now are aware of more than just the harmony; the accompaniment takes on a small amount of independent musical life.



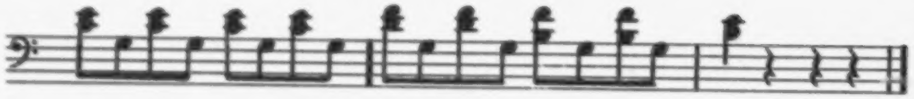
A combination of single notes and chords into a pattern usually called an oom-pah bass, or a vamp bass, is shown below. This is frequently used in marches.



Just as you can create an accompaniment pattern by playing the individual notes of the harmony one after the other, so you can place the other members of the chord on top of these notes, and thereby play the different inversions of the chords one after the other:



This illustration shows another smooth-flowing combination of chords and single notes. It is a little like an upside-down Alberti but is in complete contrast to the busy character of the Alberti.



VARIATION FORMS

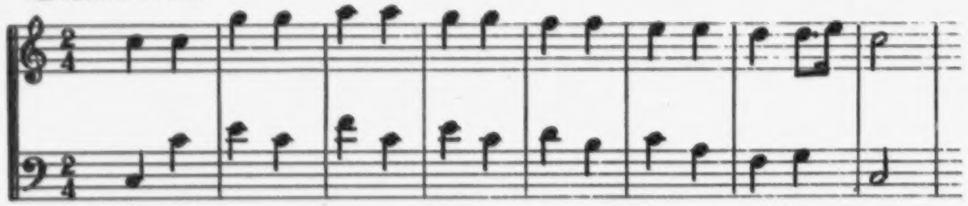
The developmental process in nearly all good music is based on the techniques of variation. These compositional techniques, which permit construction of the body of the piece from its opening constituents, satisfy one of the main requirements for good art in any medium: organic unity.

Although variation techniques are used in all good music, there are some musical forms which are popularly identified with the idea of variation. These include those compositions based on a cantus firmus, passacaglia or chaconne, and the theme and variations. This lesson catalogues the majority of the techniques of variation. It is not expected that you will become proficient in, or even familiar with, all of these techniques. Rather, it is hoped that you will feel moved to experiment with those by which you are most attracted.

Techniques of Variation

In the Classical Period, the theme was short, simply stated and easily remembered. Simplicity of thematic statement permits maximum flexibility in devising variations and achievement of a climax for the whole set of variations through a thickening of the texture.

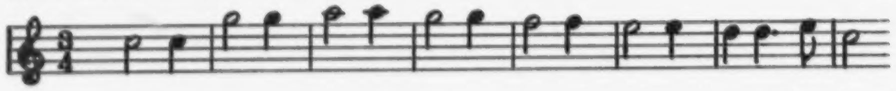
The techniques of variation may be classified under headings: temporal, tonal, textural, coloristic. In practice, a variation nearly always utilizes a number of these techniques simultaneously. Below is the theme from Mozart's "Ah, vous derais-je, maman." You will recognize it as "Twinkle, Twinkle, Little Star," no doubt. It may serve as your vehicle to explore variation forms.



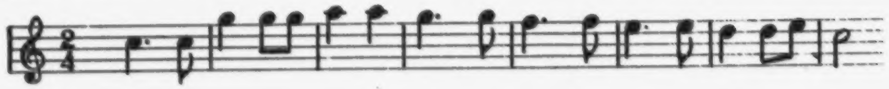
Temporal Variations

For purposes of demonstration, the following examples utilize only changes of rhythm; the pitches remain as stated in the theme.

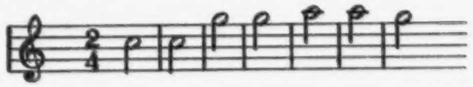
Example 1: A change of meter from 2/4 to 3/4 is achieved by lengthening the first note of each measure. Other solutions are possible. Changes to other meters can be effected in an analogous manner.



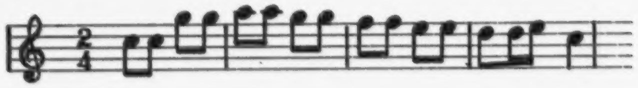
Example 2: Within the two-beat measure a great variety of rhythmic variation is possible by changing notes values, or adding or subtracting notes or rests.



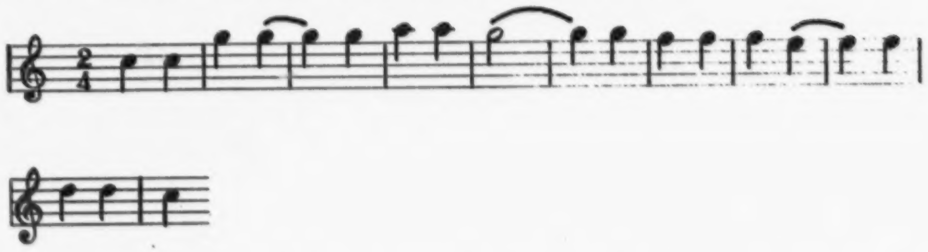
Example 3: Augmentation increases the note values by some multiple of themselves. Here, for instance, their length is doubled, while meter and tempo remain constant. All the notes are increased by the same factor, and so the relationship of their lengths remains as it was in the theme.



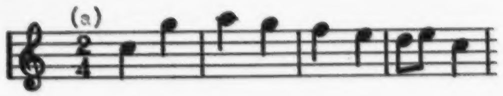
Example 4: This is the opposite of augmentation: diminution.



Example 5: The thematic statement is lengthened by a prolongation of some part of it. The effect often will be to render asymmetrical what was formerly symmetrical. In this example, the opening four measures have become six; the closing four measures have been stretched to five measures. Another effect is a reduction of the pace of the music.

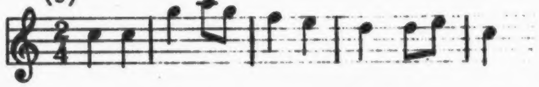


Example 6: Example (a) is very similar to diminution.



Example (b) shows an asymmetrical contraction: the first four measures of the theme contract to two measures; the second four measures of the theme contract to three measures.

(b)

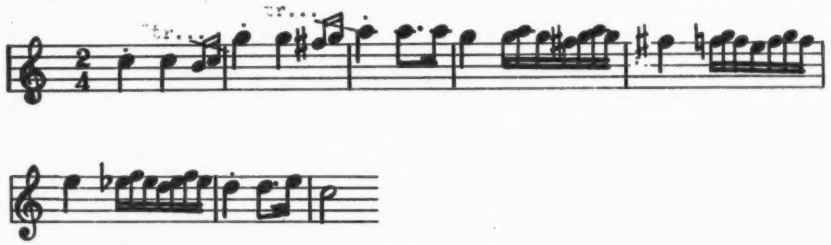


The most obvious temporal change possible is the variation of tempo; e.g., from allegro to adagio, moderato to presto, etc.

Tonal Variations

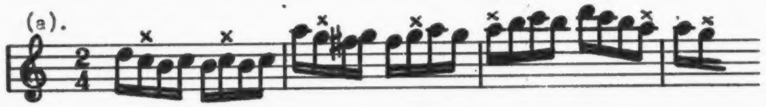
Temporal variation has been kept to a minimum in these examples of techniques of tonal variation.

Example 7: The theme is presented in its original form with the addition of ornaments or embellishments to a number of the melody notes.



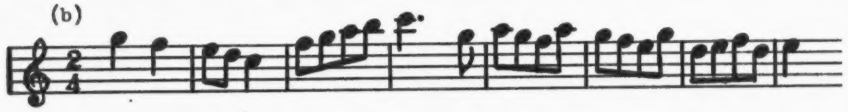
Example 8: This illustration shows ornamentation in a broader sense. The notes of the original theme may or may not be displaced rhythmically by figuration as in (a).

(a).

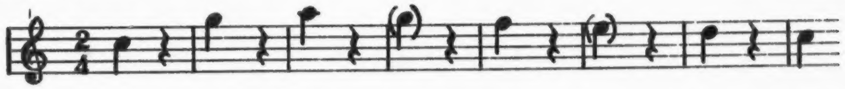


On occasion they may not appear at all, and in the most thorough-going variation of this type, a new melody may result whose relationship to the theme can be vaguely felt rather than specifically discerned. This relationship may be accounted for by the retention of the original harmony, or rhythmic or melodic length, motives or contours, as in (b).

(b)

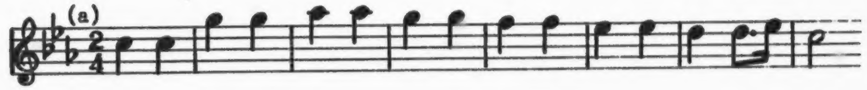


Example 9: As shown here, this is more a rhythmic than a tonal device. Deletion of the bracketed notes would create a different effect by suggesting different harmonies. This device could be more effective tonally on another theme.

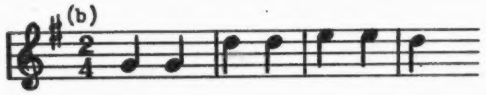


Example 10: These examples, (a) and (b), make use of change of key, or mode.

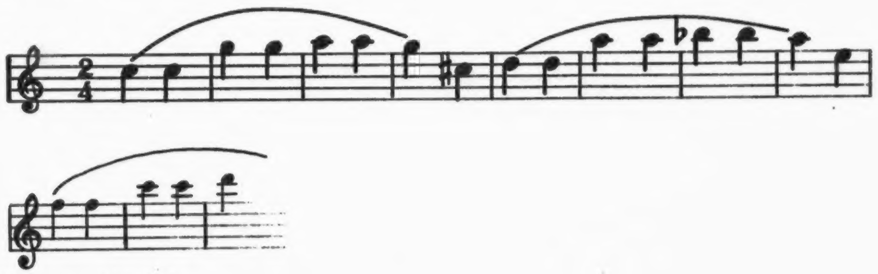
(a)



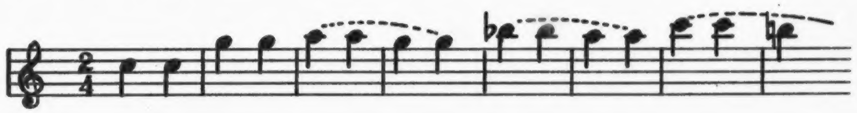
(b)



Example 11: These examples demonstrate the application of the sequential process to a "melodic fragment" (a):



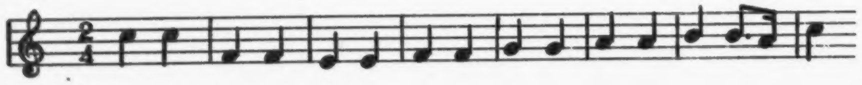
and to a motif (b):



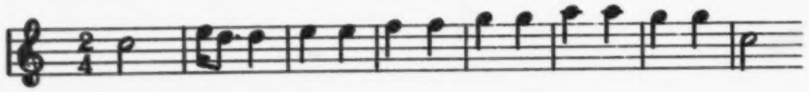
It seems to be more usual to apply the word "sequence" to the repetition of a "phrase" than to the repetition of a "motif."

Example 12: The following illustrations are of variation techniques which are most often found in connection with a polyphonic texture, although their occurrence in homophony is not infrequent.

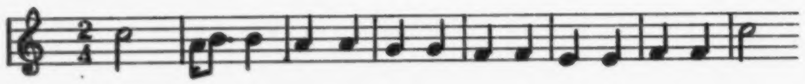
(a) Inversion: The intervals of the original theme are turned upside-down: what was formerly an upward leap of a fifth becomes a downward leap of a fifth.



(b) Retrograde: Here the theme is played backwards.

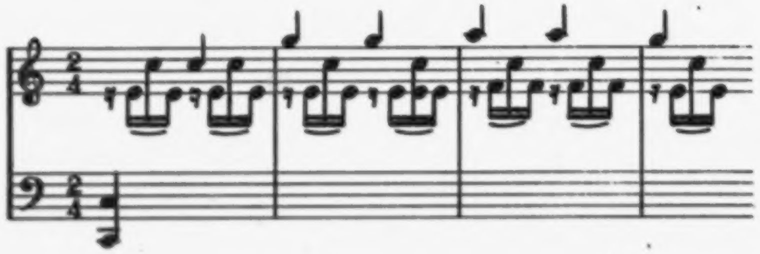


(c) Retrograde inversion: The inversion of the theme is played backwards.

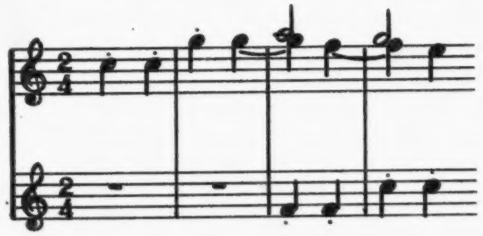


Textural Variations

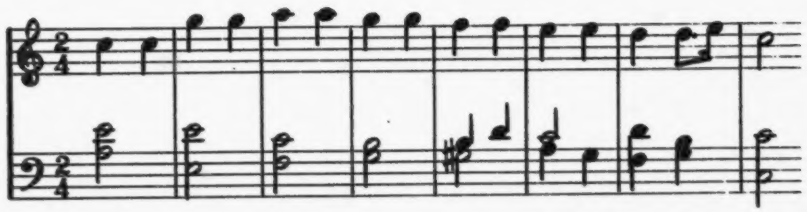
Example 13: The original statement of the theme is set in a homophonic texture (although in this case there is an easily discernable polyphonic element). This example is a more elaborate setting in a homophonic texture which retains the melody and harmony of the original thematic statement.



Example 14: This shows the theme in an imitative polyphonic texture.



Example 15: The melodic theme in its original form is shown here with a new harmonic setting in a polyphonic texture.



Coloristic Variations

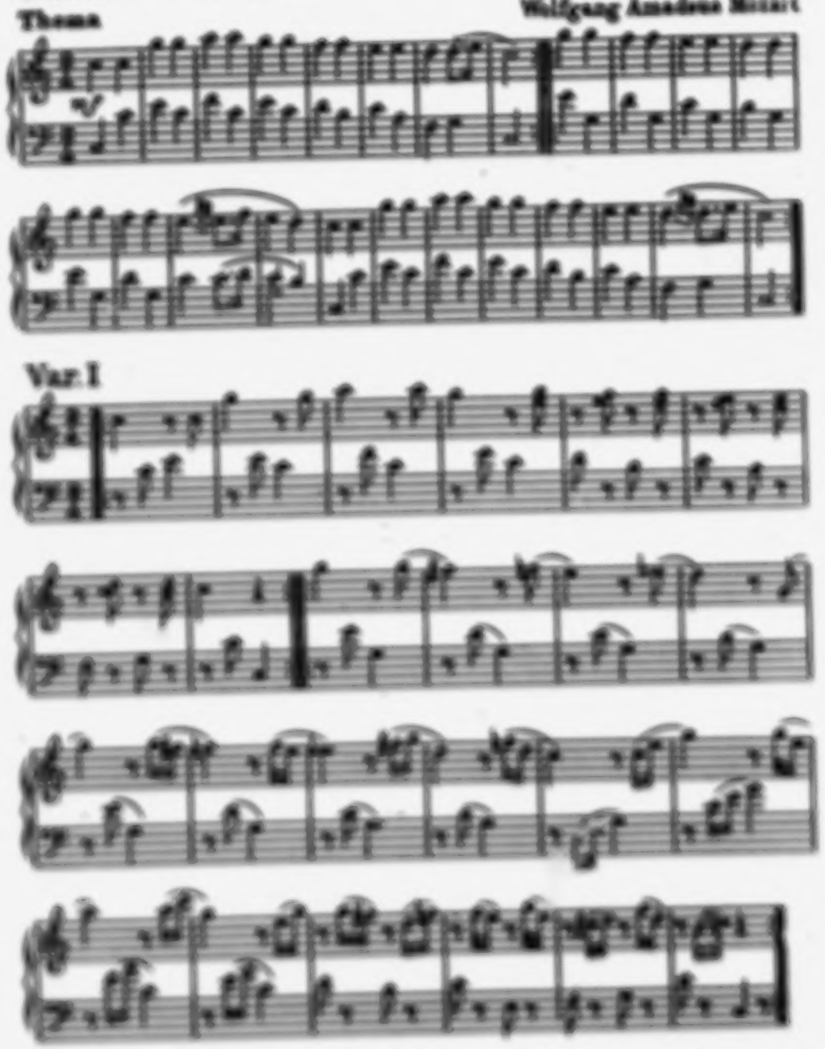
These variations may be made through the following changes:

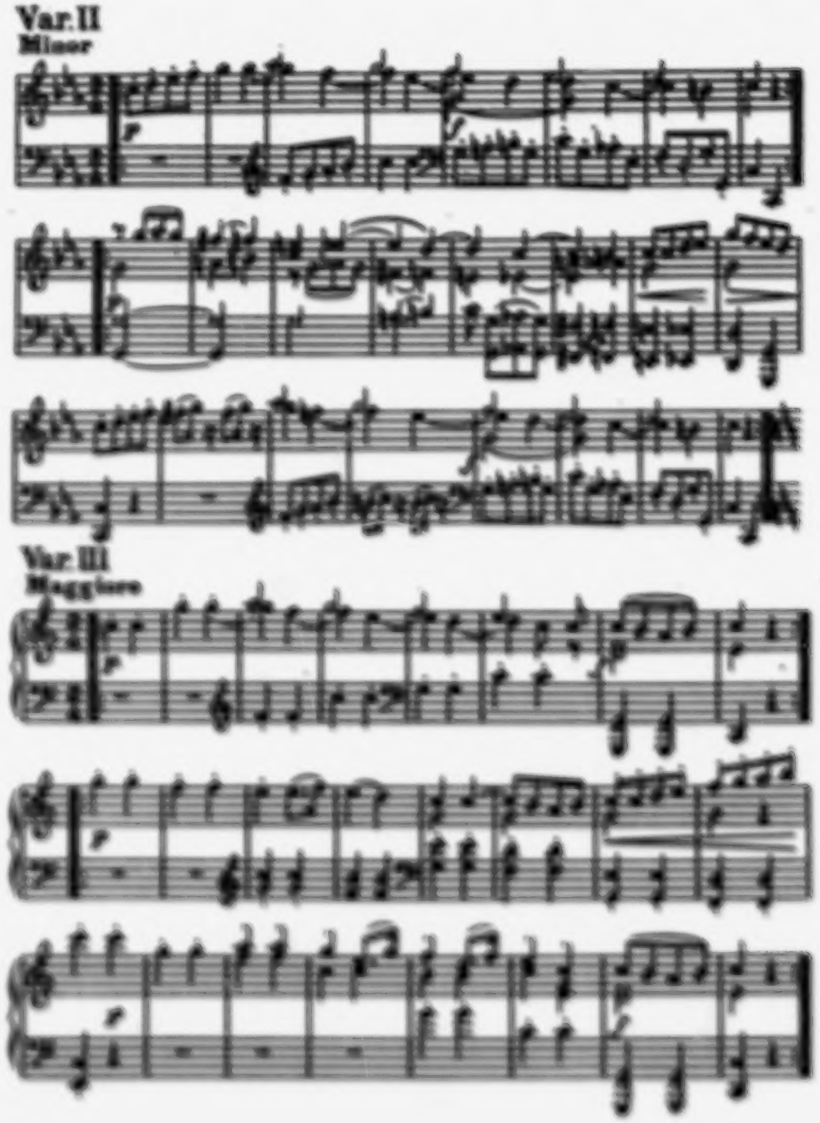
Dynamics: changes from piano to mezzo forte, for example.
Articulation: variation in phrasing, use of legato, staccato, etc.
Timbre: an analogy to the changes of instrumental timbre possible in the orchestra can be achieved on the piano by, for instance, the use of octaves, or by moving melody or accompaniment to a different pitch range.

Below are three of Mozart's variations which will serve as a guide for writing your own variation.

Thema mit Variationen

Wolfgang Amadeus Mozart

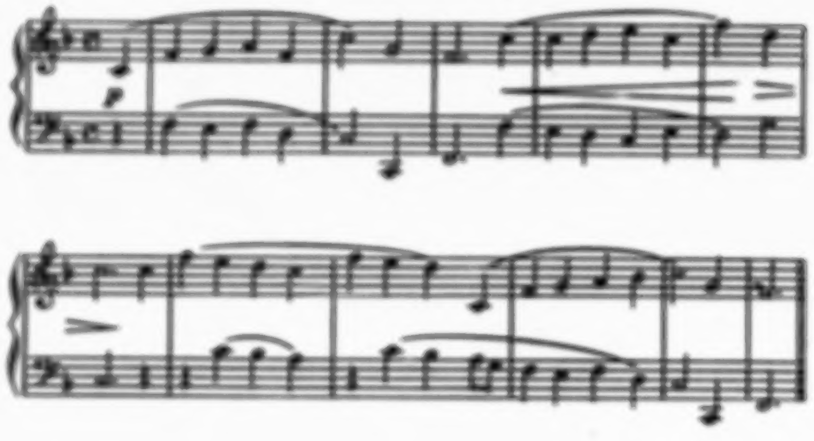




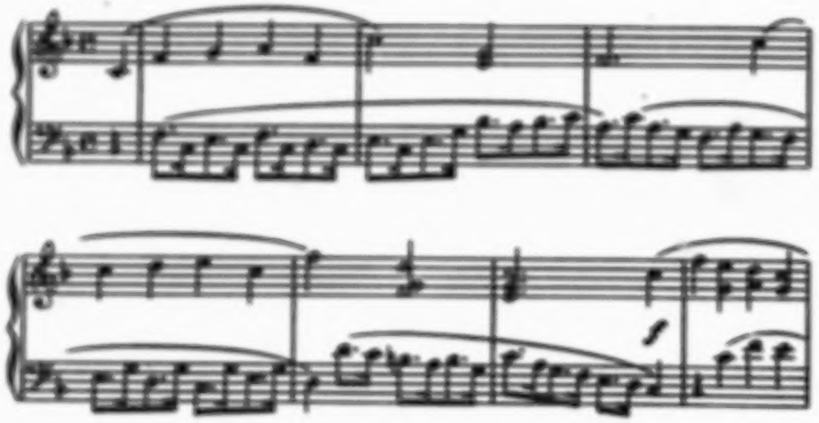
Thema

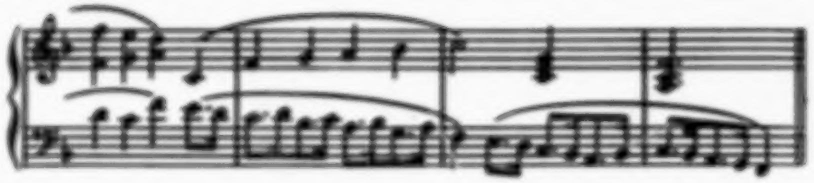
Andante con moto

Ludwig van Beethoven 1770-1827

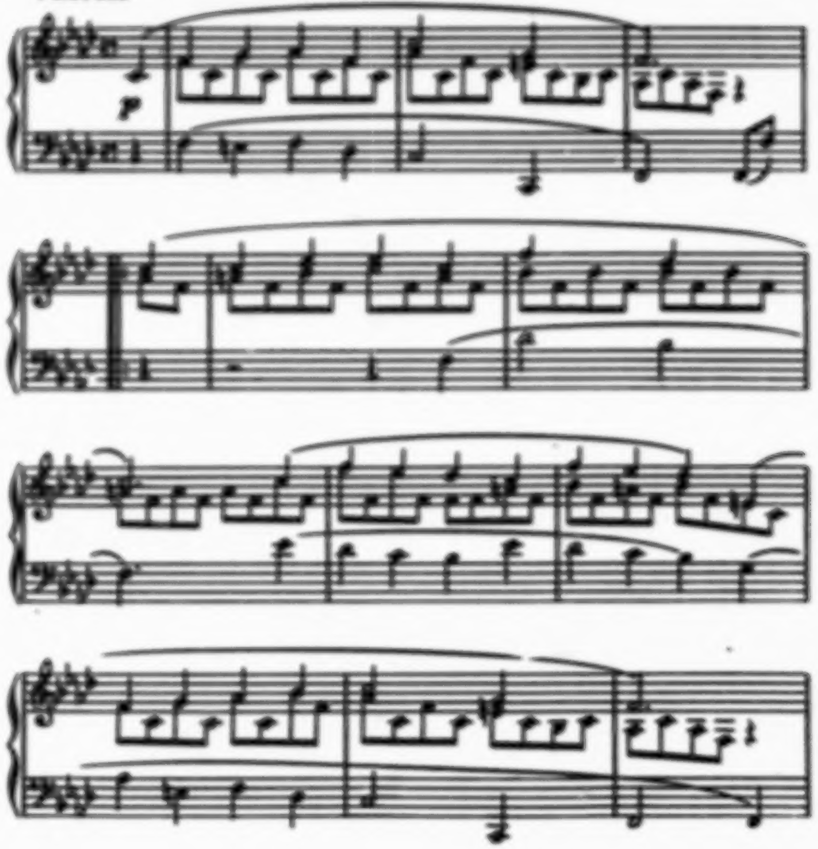


Var. II



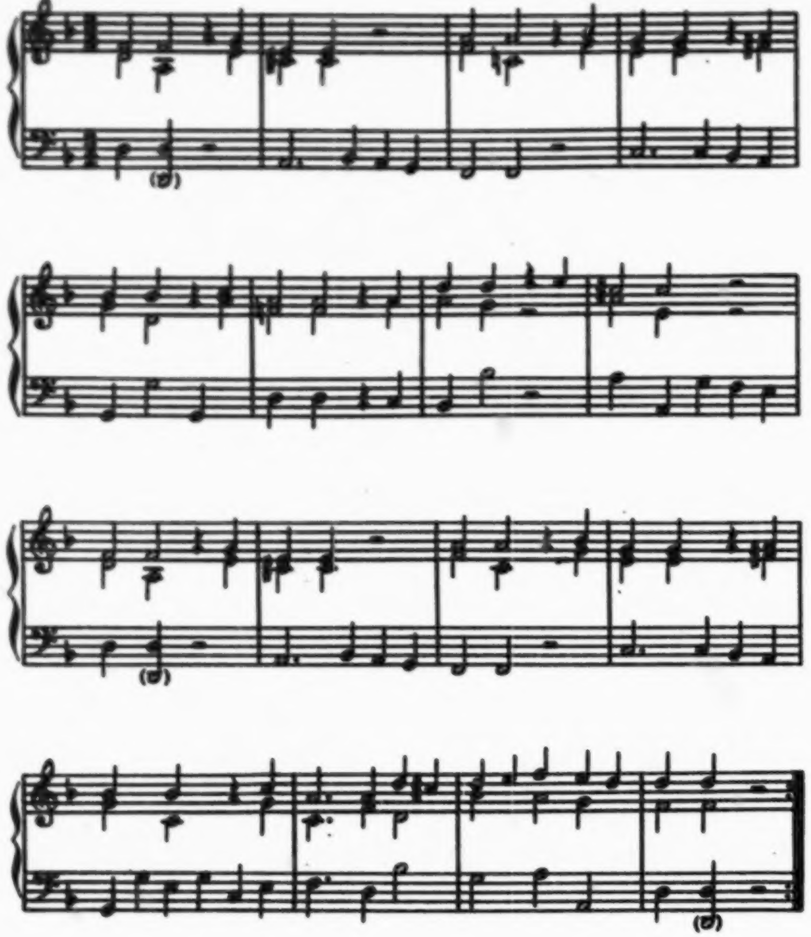


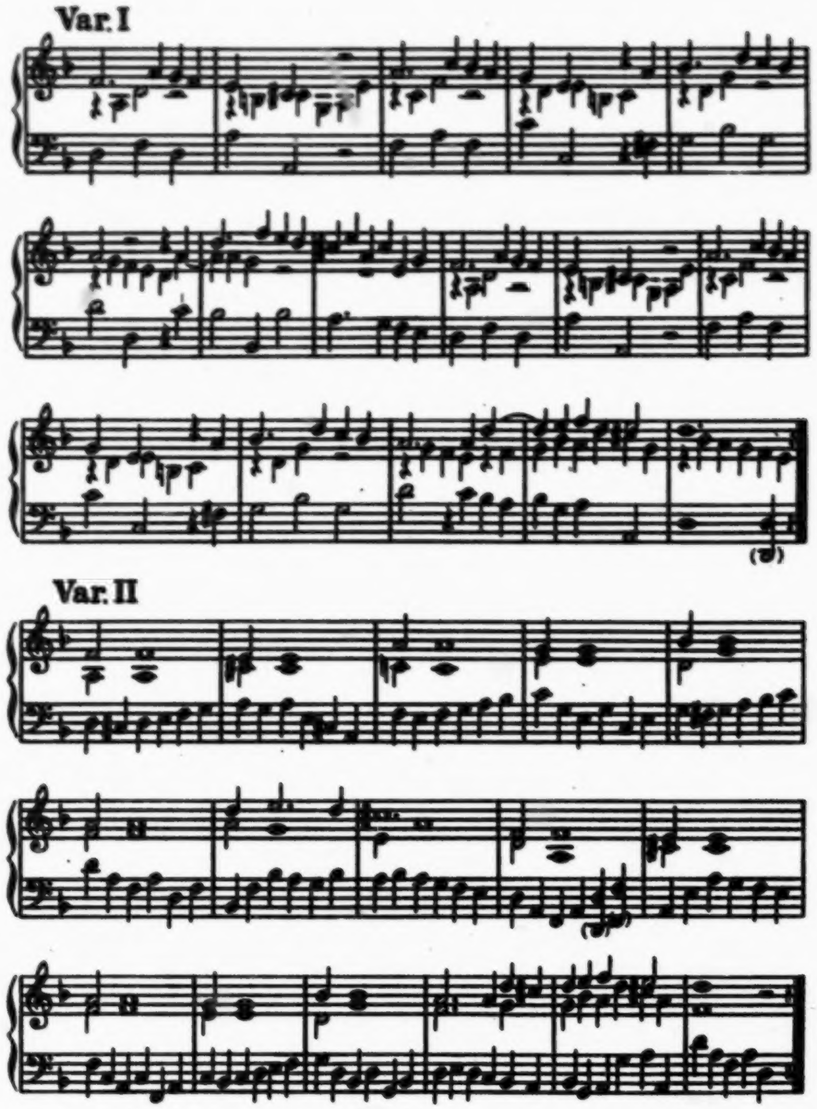
Var. III



Sarabande

Andante **Georg Friedrich Händel**





COMPOSING A MUSICAL PLAY

Initial Considerations

Because a text takes longer to sing than to speak, and because of time taken up in a musical play by music which is not an accompaniment to the text, the libretto of a musical play must be very much shorter than the text of a spoken play of the same performance time. The libretto therefore must present character and action with clarity, firmness and economy.

Audiences frequently find difficulty in comprehending complex or subtle verbal ideas when presented in a musical setting, which they would understand quickly in spoken performance or on the printed page. The libretto should give clear expression to relatively simple ideas. Subtle or profound exposition of character or action is better left to the music.

In summary, the libretto which lends itself most readily to effective musical setting will give heightened but transparent expression to simple (but not necessarily superficial) ideas, to bold action, and to firmly defined and clearly contrasted characterization.

Discovering the Possibilities and Implications of a Libretto

Read the libretto carefully, paying attention to character, action, and form.

A. Character: List the defining features of the characters as implied by the libretto. If the text does not give adequate contrast to the characters, you may find it useful to provide a musical setting which exaggerates some aspects of a character, or which suggests characteristics not specifically implied by the text (but which are consistent with the text). Broad decisions of this type should be made before your musical setting is begun.

B. Action: Look for points of tension and stasis, climax and anticlimax.

C. Form: Make a visual representation of the formal layout of the libretto with respect to the occurrence of songs, dialogue, and actions which will need a musical accompaniment; e.g., dramatic action, dances, processions.

Exercise:

Read and analyze the libretto of "Christopher Columbus."

1. Describe the characters of Malo, Columbus, the crowd in the tavern, the ladies-in-waiting, Isabella, Ferdinand, and the sailors.

2. Describe the rise and fall of tension in each scene, and in the libretto as a whole.

CHRISTOPHER COLUMBUS

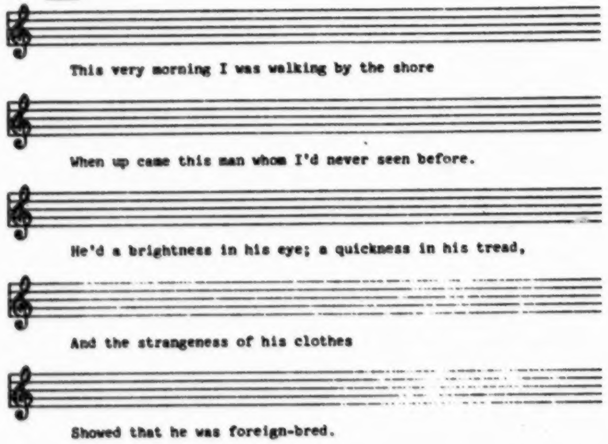
Scene I

Palos, Spain: A seamans' tavern

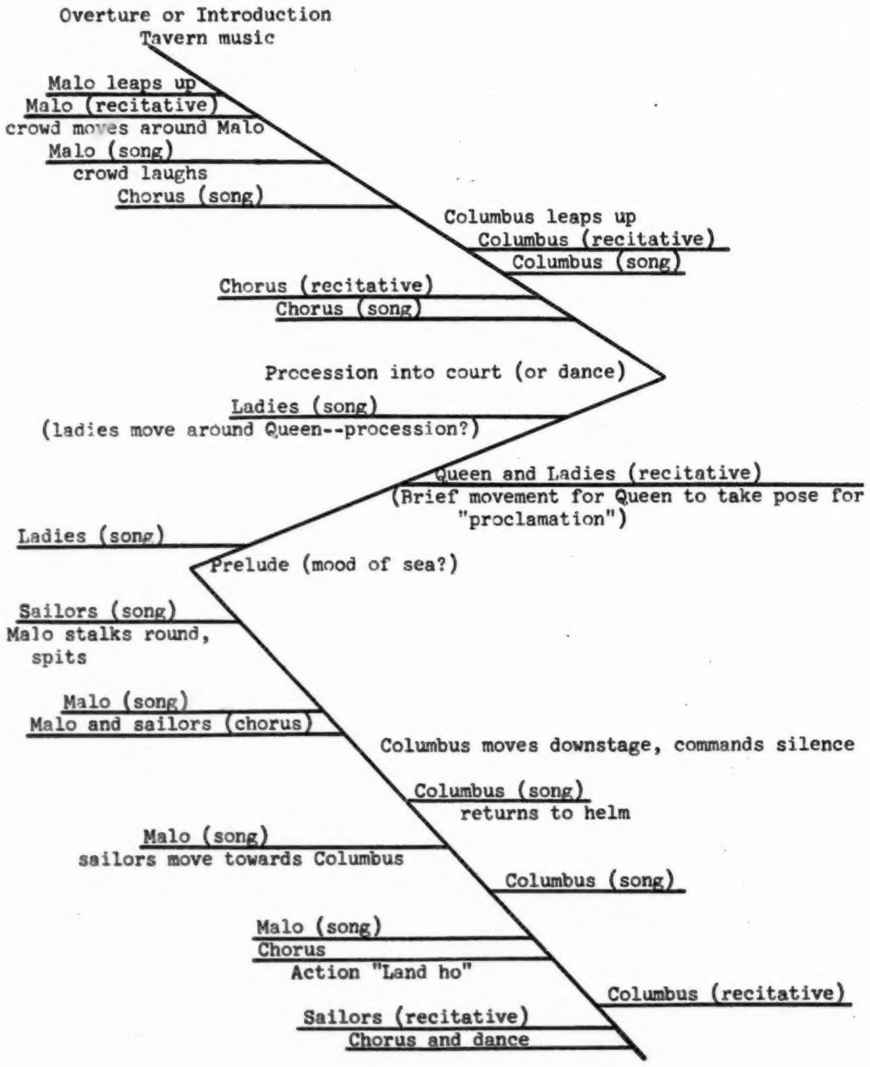
Christopher Columbus is talking urgently with Malo at a table in the foreground. Other tables, with sailors, a few girls, buzzing of conversation. Malo suddenly jumps up and bangs his hand on the table.

Malo: You're mad, by gad, you're mad!
I take you all as witnesses!
Gather round and hear me.
(others gather round)

Malo:


This very morning I was walking by the shore
When up came this man whom I'd never seen before.
He'd a brightness in his eye; a quickness in his tread,
And the strangeness of his clothes
Showed that he was foreign-bred.

We are indebted to Colin Nettelbeck of the University of California, Berkeley, for writing the libretto for "Christopher Columbus."



3. Does the libretto offer opportunities for action or spectacle? Include these in a visual representation of the form of the libretto.

4. Mention any other aspects of the libretto which you feel should be taken into account before beginning a musical setting.

Below are some possible solutions to these exercises.

A. Character Analysis.

Malo: Stolid--not easily moved by Columbus' imaginative ideas. Identifies with the townspeople, rather than with Columbus. A sailor; loves the sea. Is this a suggestion of some depth of character, or of a stereotype sailor? A leader--spokesman for the crowd and for the sailors. For purposes of greater contrast to Columbus, he could be presented as a rather slow, deliberate fellow.

Tavern crowd: Conformists, unimaginative, react with derision and hostility to unfamiliar ideas.

Sailors: Presumably the more adventurous members of the townspeople; under normal circumstances, good fellows, but in face of the unfamiliar or dangerous, potentially hostile, treacherous.

Christopher Columbus: Imaginative, romantic; nonconformist; active; arrogant--disdains the crowd and is interested in them only as a means to his own ends.

Ladies-in-Waiting: Quick-witted, clever; know their value but not their "place" in the Court. Domineering, but feminine ("handsome Columbus" will bring glory). Imaginative--can be caught up by an idea.

Queen Isabella: Pompous (vain also?); stupid, weak, cautious.

Ferdinand: Weak; ineffectual.

B. Interaction Between Characters

Interaction between the characters creates questions which must be answered, conflicts which must be resolved. A state of tension is created which carries the audience forward to the point at which the tension is removed by the resolution of the conflicts or questions.

Scene I.

Malo's recitative: Malo leaps up and violently upsets the congenial tavern atmosphere.

1. Who is Malo?
2. Why is Malo so upset?
3. Why does he say "the man is mad"?

4. Who is the man?

Malo's song: We discover who Malo is, why he is upset, why he believes the man is mad, and a little about the man. Conflict is revealed between Malo and the man.

5. Will the crowd side with Malo or the man?
6. How will the man react to Malo's derision?
7. Will the man realize his dream of sailing to the West?
8. If he does sail, will the journey be successful? Is his concept a true one?

Chorus: The crowd sides with Malo, and the man is now in conflict with the whole group.

9. How will the man react to the crowd's derision?

Columbus' recitative: The man is angry. He demands that the crowd hear his story.

10. What will the man's side of the story be?

Columbus' song: We discover who the man is and what he is doing in Spain. His final action is to promise to bypass the crowd and seek help from the Queen. This leaves the conflict between the crowd and himself unresolved.

11. Will the conflict between Columbus and the crowd be resolved?
12. Will Columbus get help from the Queen?

Chorus: The conflict between Columbus and the crowd has not been resolved.

Scene II.

Our normal expectations for this scene at Court would be for Columbus to have an audience with the Queen. These expectations are amusingly subverted by the discovery that the Queen is weak, that the Ladies-in-Waiting are in charge of the Court, and that Columbus does not even appear. Columbus' theme is kept alive, but in this scene he becomes of secondary interest as we discover the nature of the relationship between the queen (and king) and the Court.

Ladies-in-Waiting song:

13. Is the Ladies-in-Waiting statement of their position in Court true?

The Queen and Ladies-in-Waiting: The Queen, through caution, is a little against Columbus. The Ladies-in-Waiting take his part. A test and partial resolution of (13) through the question of Columbus.

14. Will the Ladies-in-Waiting persuade the Queen to assist Columbus?
15. Will the King agree with the Ladies-in-Waiting?

The King and Ladies-in-Waiting: The King proves even weaker than the Queen.

Ladies-in-Waiting and the Queen: The Ladies have their way and Columbus his.

Scene III.

The sailors may or may not have belonged to the tavern crowd. Since Malo is with them, it is reasonable to suppose that they are from the tavern; therefore, the conflict between the crowd and Columbus was partially resolved between Scenes II and III. We now find the sailors in sad and complaining mood, although in the first song their complaints are not specifically directed towards Columbus.

Sailors' song:

16. How will the sailors' ill-humor be resolved?
17. Will the risk of death by starvation be averted?

Malo: In this song, Malo does not mention Columbus, but does scowl and spit at him so revealing his thoughts. Once again he identifies with the crowd rather than with Columbus.

18. Will Malo bring into the open his apparent animosity to Columbus?

Columbus: Columbus reveals his lack of sympathy and arrogance. Adds to the growing situation of conflict.

19. How will the sailors react to Columbus' lack of sympathy?

Malo: Malo blames Columbus; proposes mutiny.

20. Will the sailors go along with Malo?
21. Can Columbus handle such an unequal confrontation?

Columbus: The sailors join Malo. Columbus reacts with authority and strength and appears to have won against the mutineers.

22. Has Columbus really won in this conflict?

Malo: Malo urges the sailors on again.

23. Will Malo prevail over the sailors?

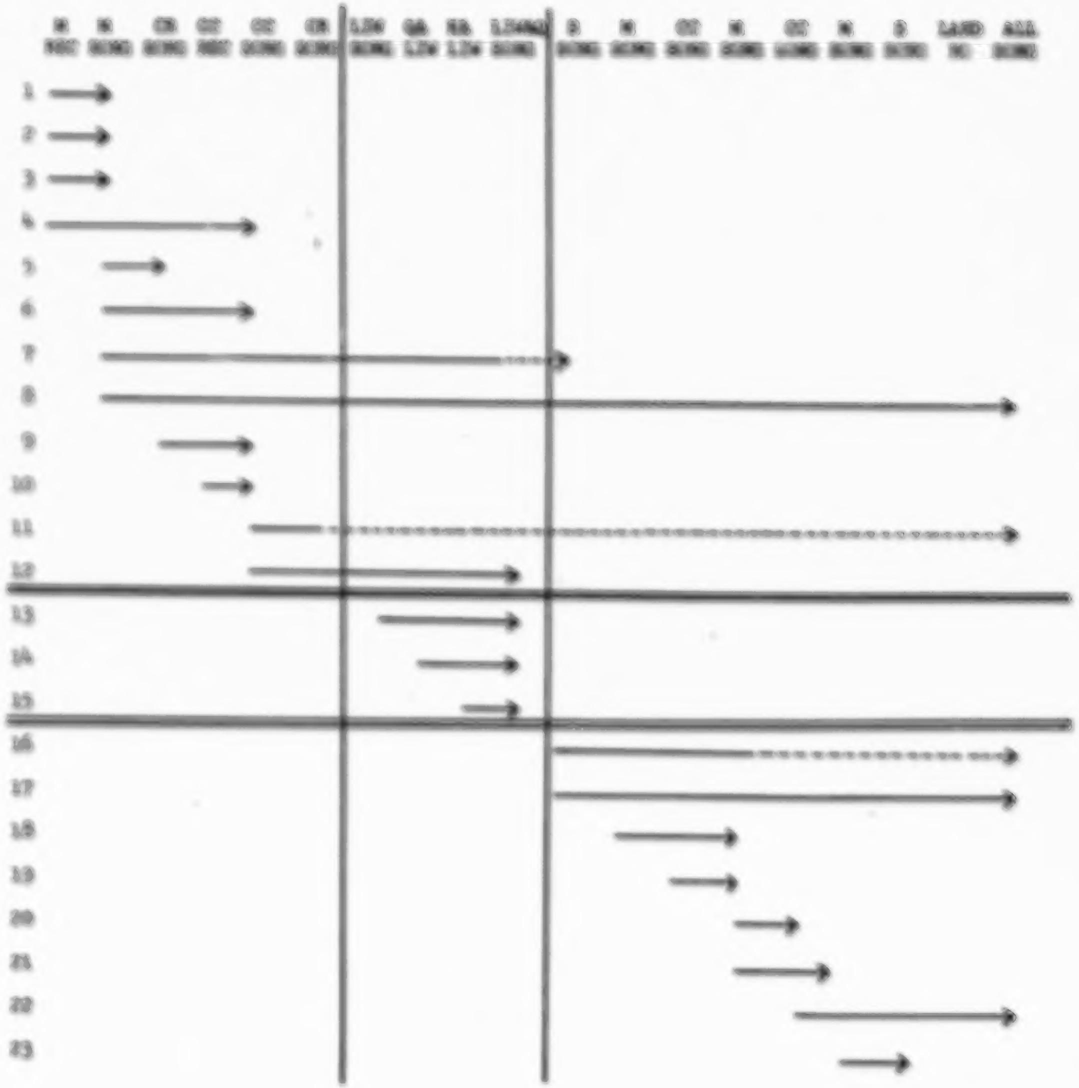
Chorus: Malo persuades the sailors to mutiny.

Recitative: "Land ho!" Land is seen.

23. Will this meet the ending?

Change: The conflict is resolved as are all the remaining major questions.

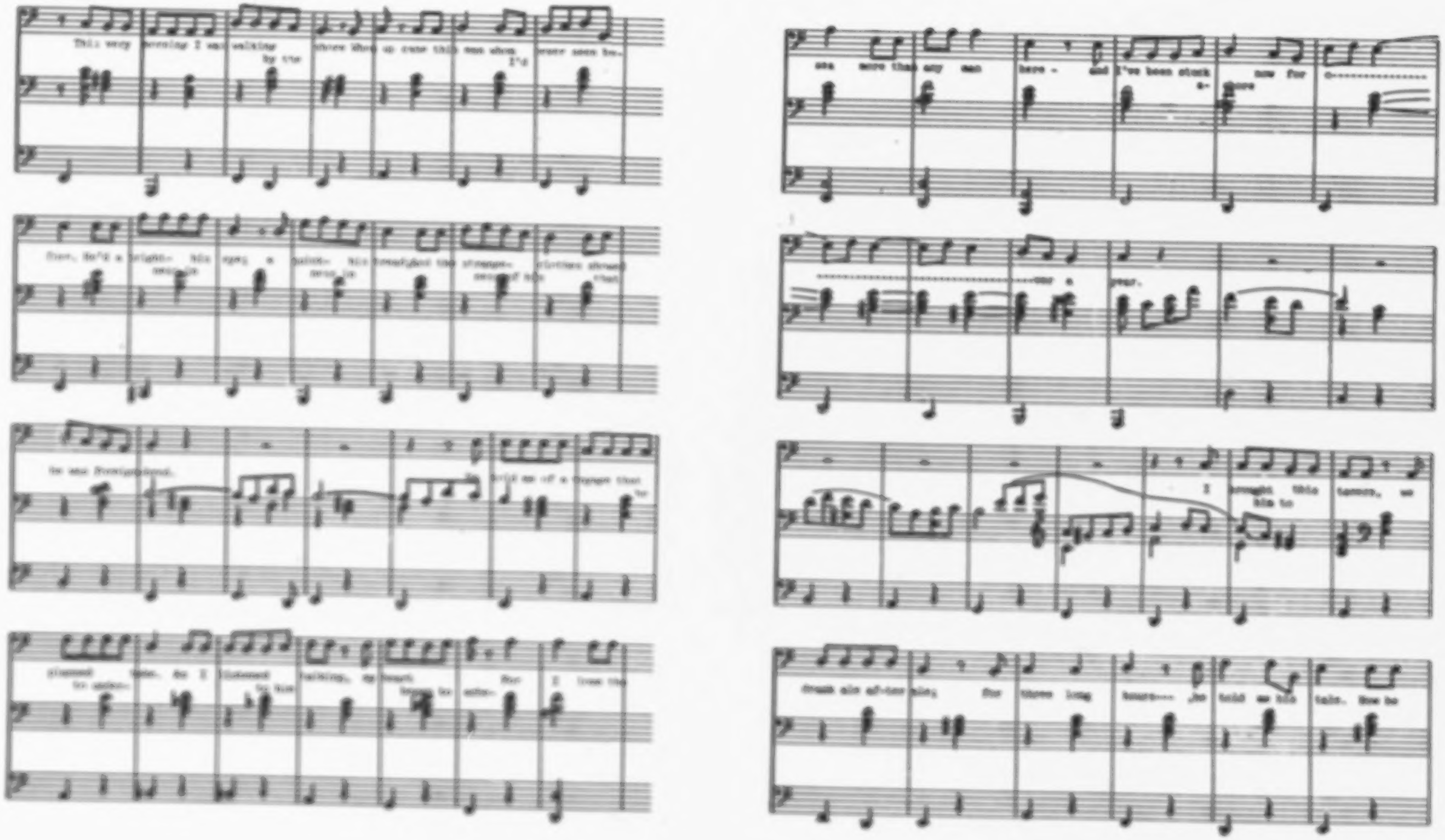
The graph on the following page illustrates the definition and resolution of the questions and conflicts. Notice that question 8 is posed early in Scene I and is not resolved until the end of Scene III. We could call this the main theme of the libretto: "Will Columbus be able to realize his dream by reaching a new world to the West?" Notice that a number of important questions find resolution at the end of Scene III. In Christopher Columbus' song and in the final song of Scene II, a number of other conflicts and questions are resolved. In all these cases, resolution brings with it a reduction of dramatic tension. An appropriate musical setting perhaps would provide a reduction of musical tension at these points by, for instance, a return to a "home" key.

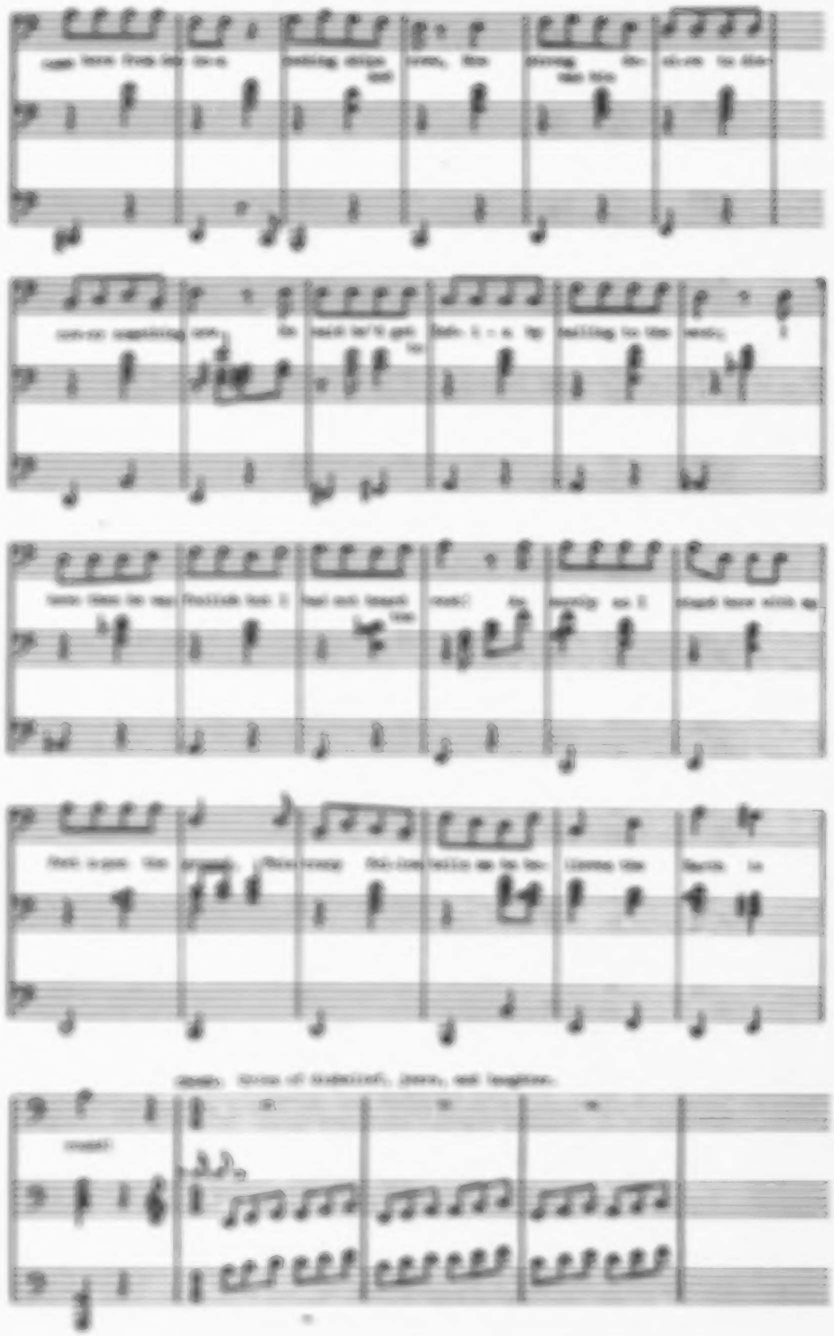


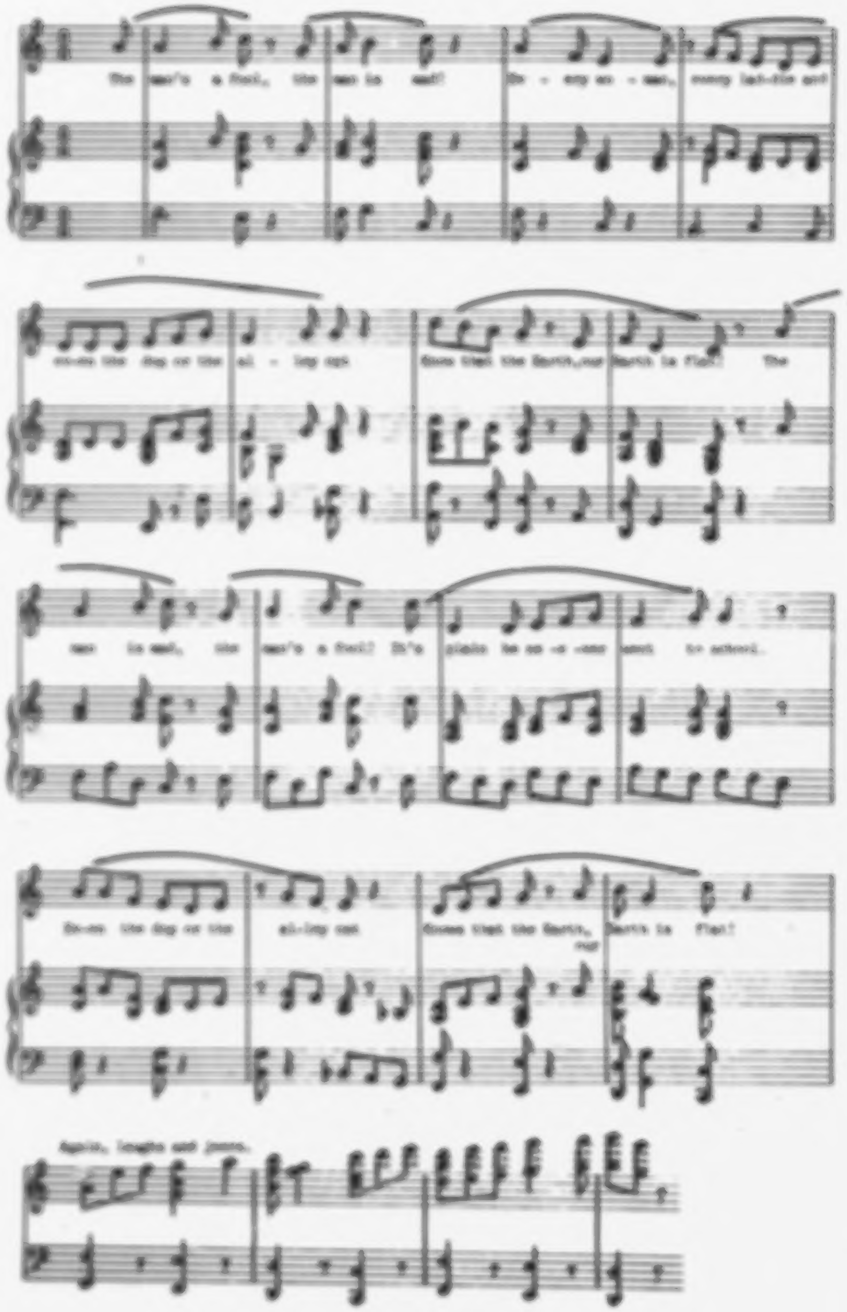
CHRISTOPHER COLUMBUS

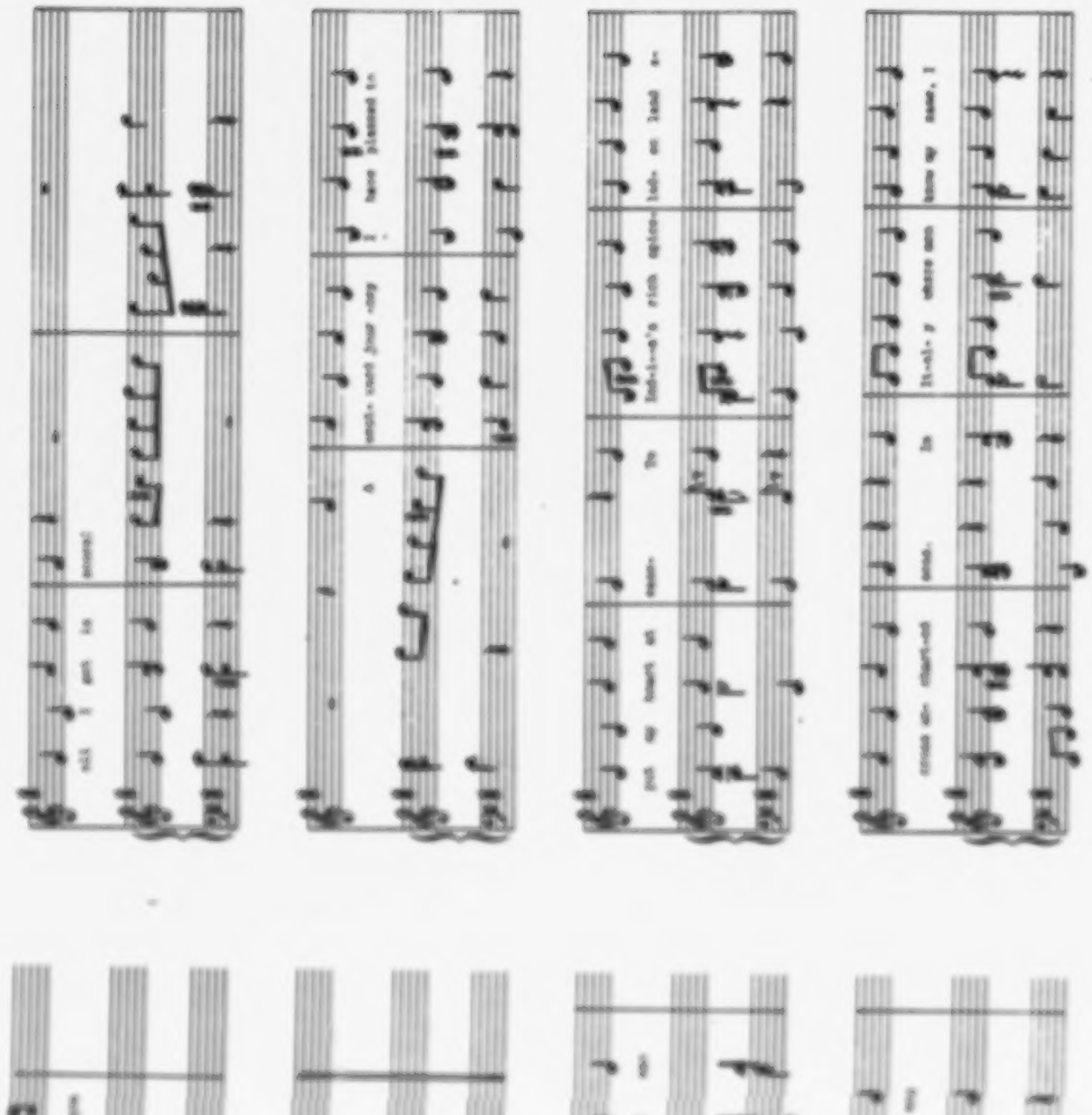
Scene I

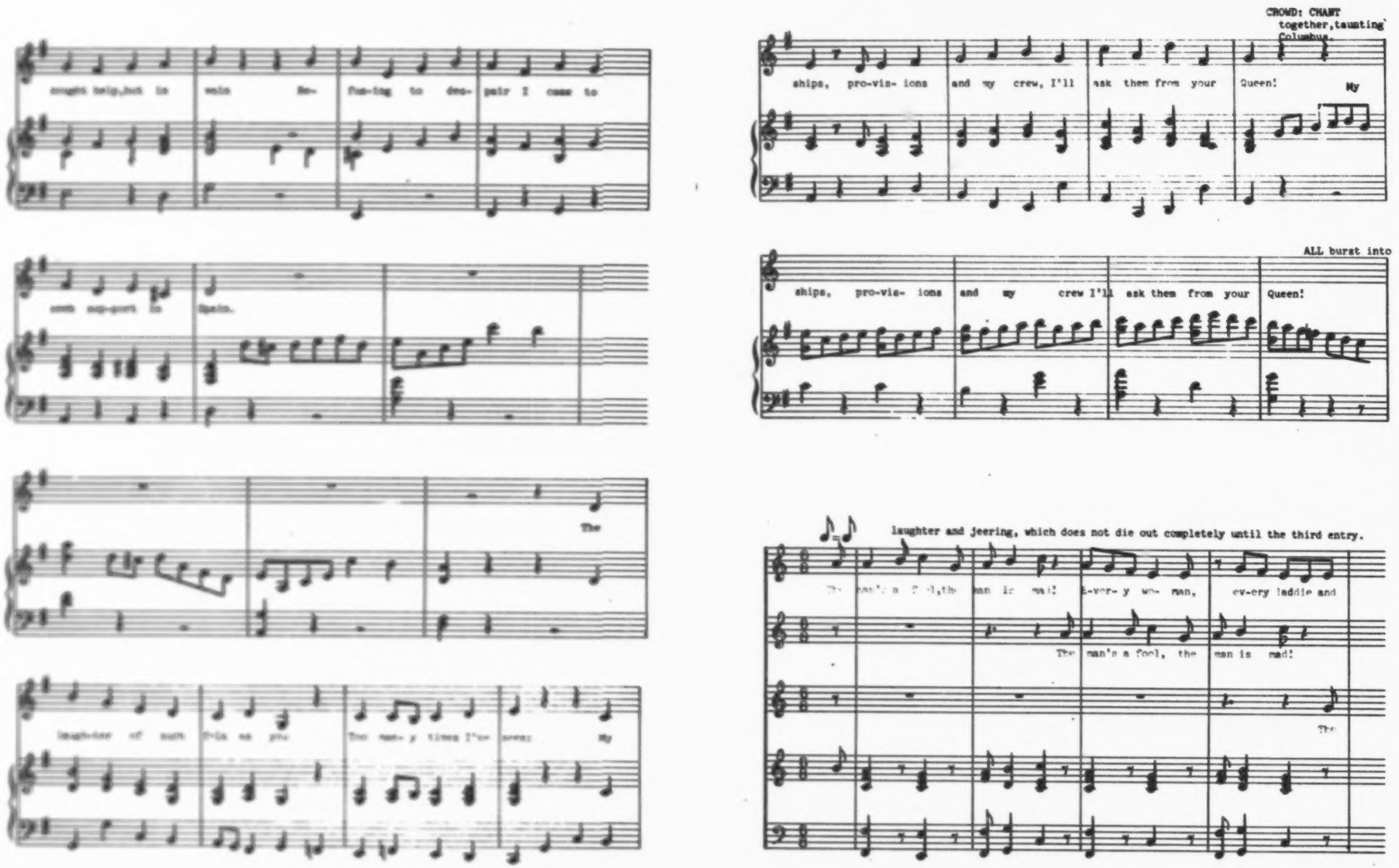
Malo:


This very morning I was walking by the shore When up came this man whom I'd never seen be-
fore. He'd a bright- ness in his eyes, a quick- ness in his breath, and the strange- ness of his clothes showed that
he was Portuguese. He told me of a voyage that he
planned to under- take. As I listened to his talking, my heart began to ache. For I know the
sea more than any man here - and I've been stuck a- shore now for o---------------ver a year.
I brought this tavern, so his to
drank ale af-ter ale; for three long hours--- he told me his tale. Now he


Cries of disbelief, jeers, and laughter.
round!

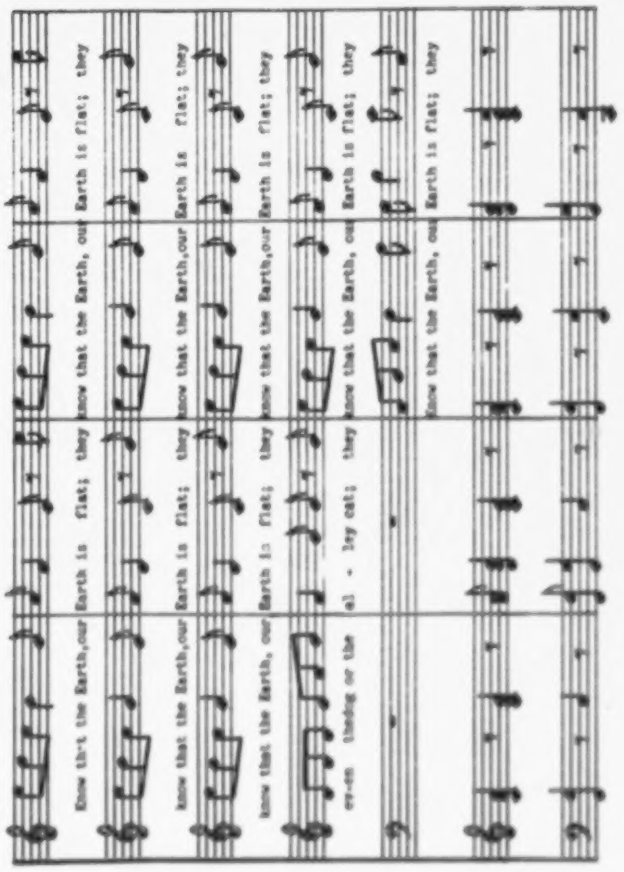

The man's a fool, the man is mad!
Earth is Flat!
Earth is Flat!
Again, laughs and jeers.

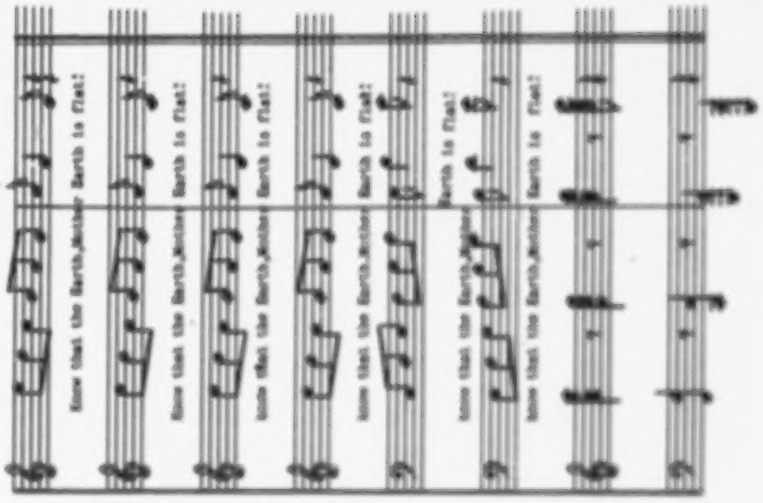

all I got is sorrow
until that four-way I have planned to
put my heart at sea. To Emb-i-a's rich splen-did land a-
cross an uncharted sea. In It-al-y where men know my name, I

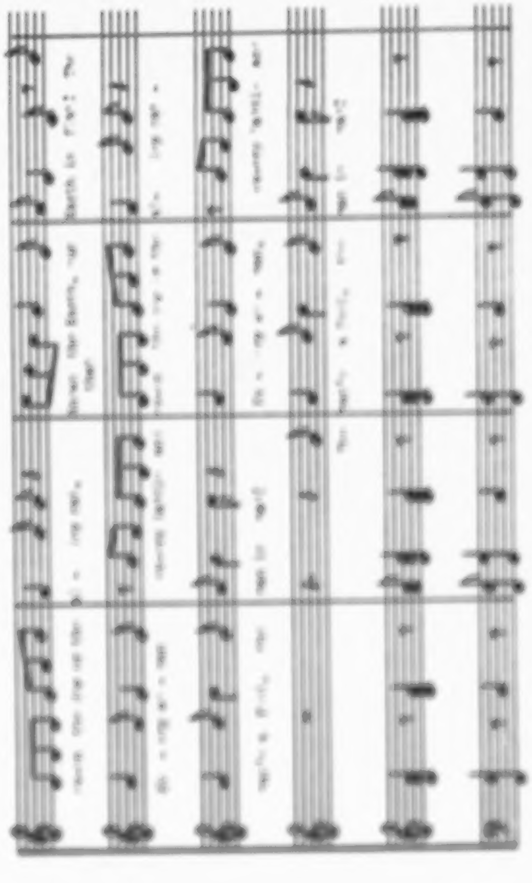

sought help, but in vain Re- fus-ing to des- pair I came to
seek sup-port in Spain.
The
laugh-ter of such fools as you. Too man-y times I've seen; My
ships, pro-vis- ions and my crew, I'll ask them from your Queen! My
ships, pro-vis- ions and my crew I'll ask them from your Queen!
The man's a fool, the man is mad! E-ver-y wo- man, ev-ery laddie and
The man's a fool, the man is mad!
The

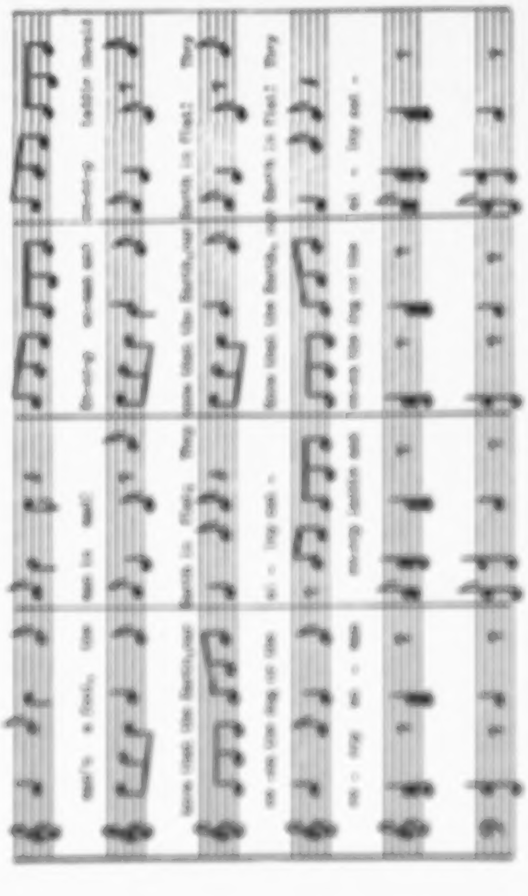
CROWD: CHANT together, taunting Columbus.

ALL burst into laughter and jeering, which does not die out completely until the third entry.


Know th't the Earth, our Earth is flat; they know that the Earth, our Earth is flat; they
know that the Earth, our Earth is flat; they know that the Earth, our Earth is flat; they
know that the Earth, our Earth is flat; they know that the Earth, our Earth is flat; they
ev-en theding or the al - ley cat; they know that the Earth, our Earth is flat; they
know that the Earth, our Earth is flat; they


know that the Earth, Mother Earth is flat!
know that the Earth, Mother Earth is flat!
know that the Earth, Mother Earth is flat!
know that the Earth, Mother Earth is flat!
know that the Earth, Mother Earth is flat!
know that the Earth, Mother Earth is flat!
know that the Earth, Mother Earth is flat!

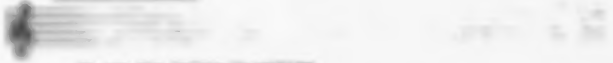




Scene II.

The court of the Queen of Spain. The queen is sitting on her throne, the king beside her. Four ladies in waiting.

Ladies in waiting:

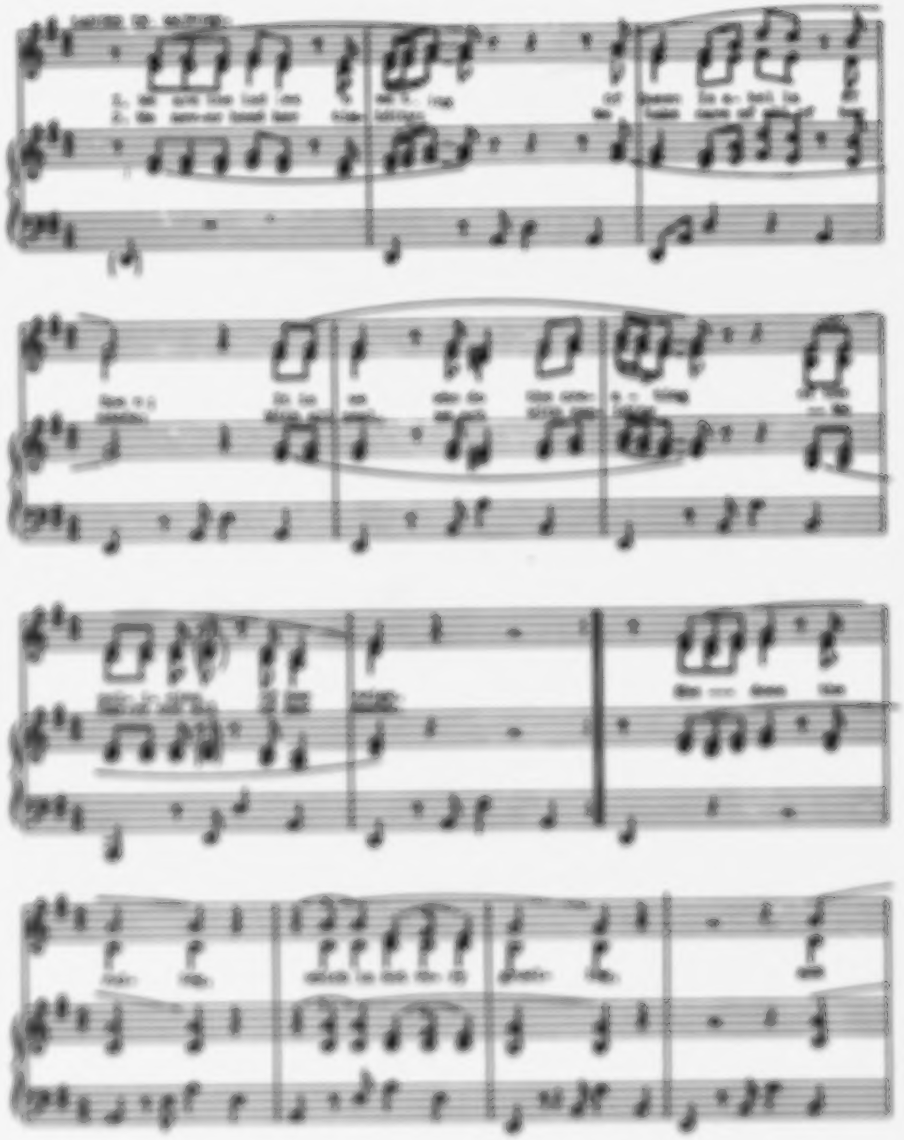


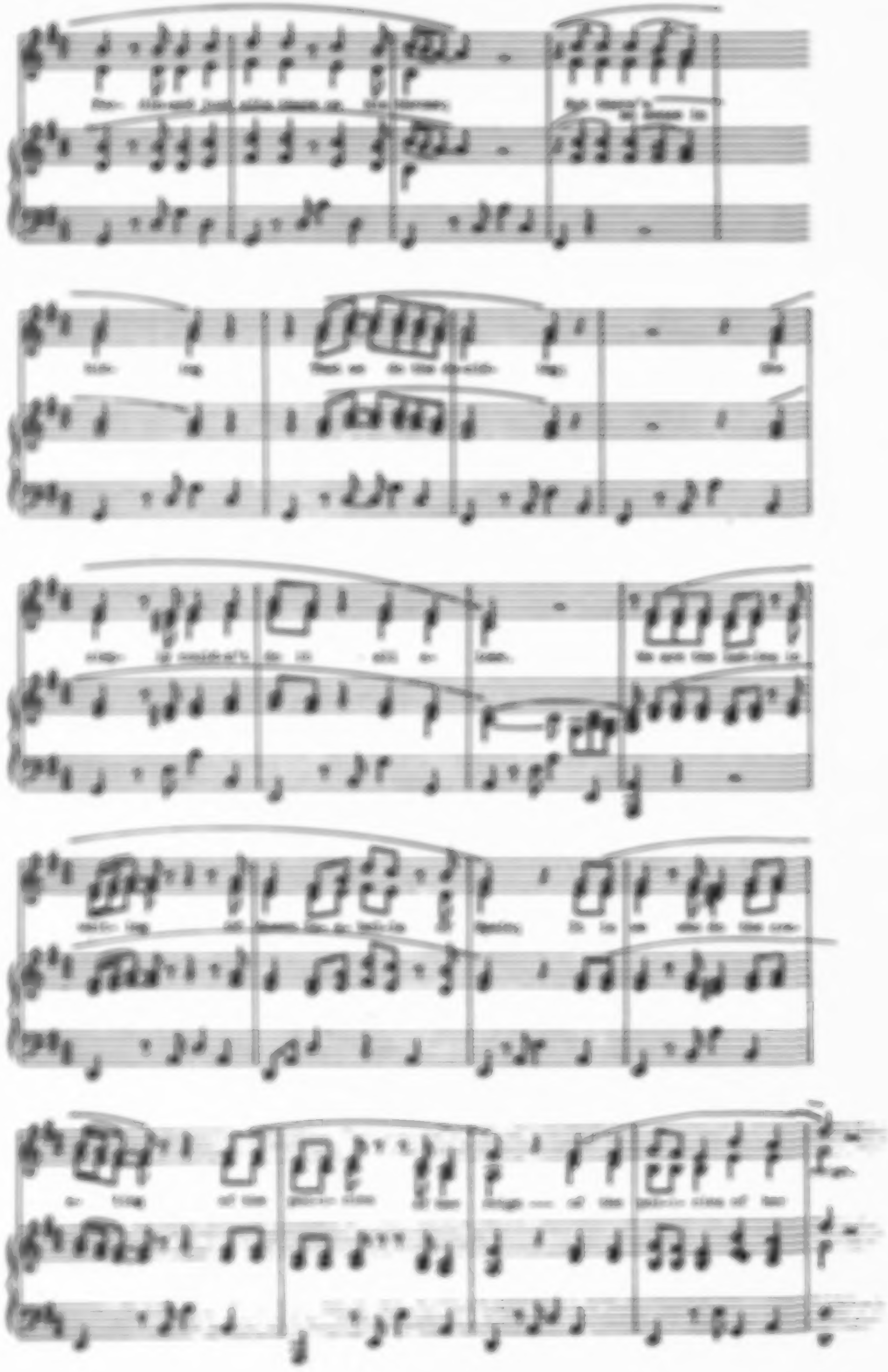
We are the ladies-in-waiting

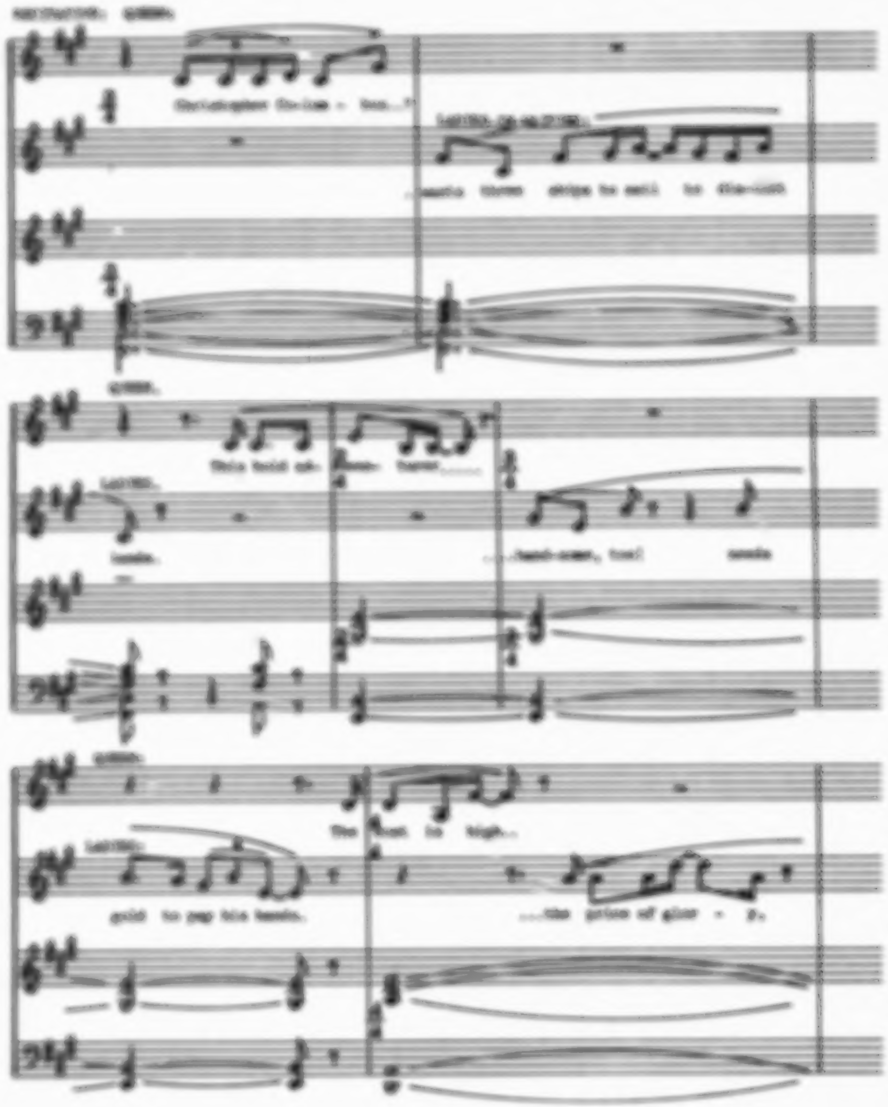
of Queen Isabella of Spain.

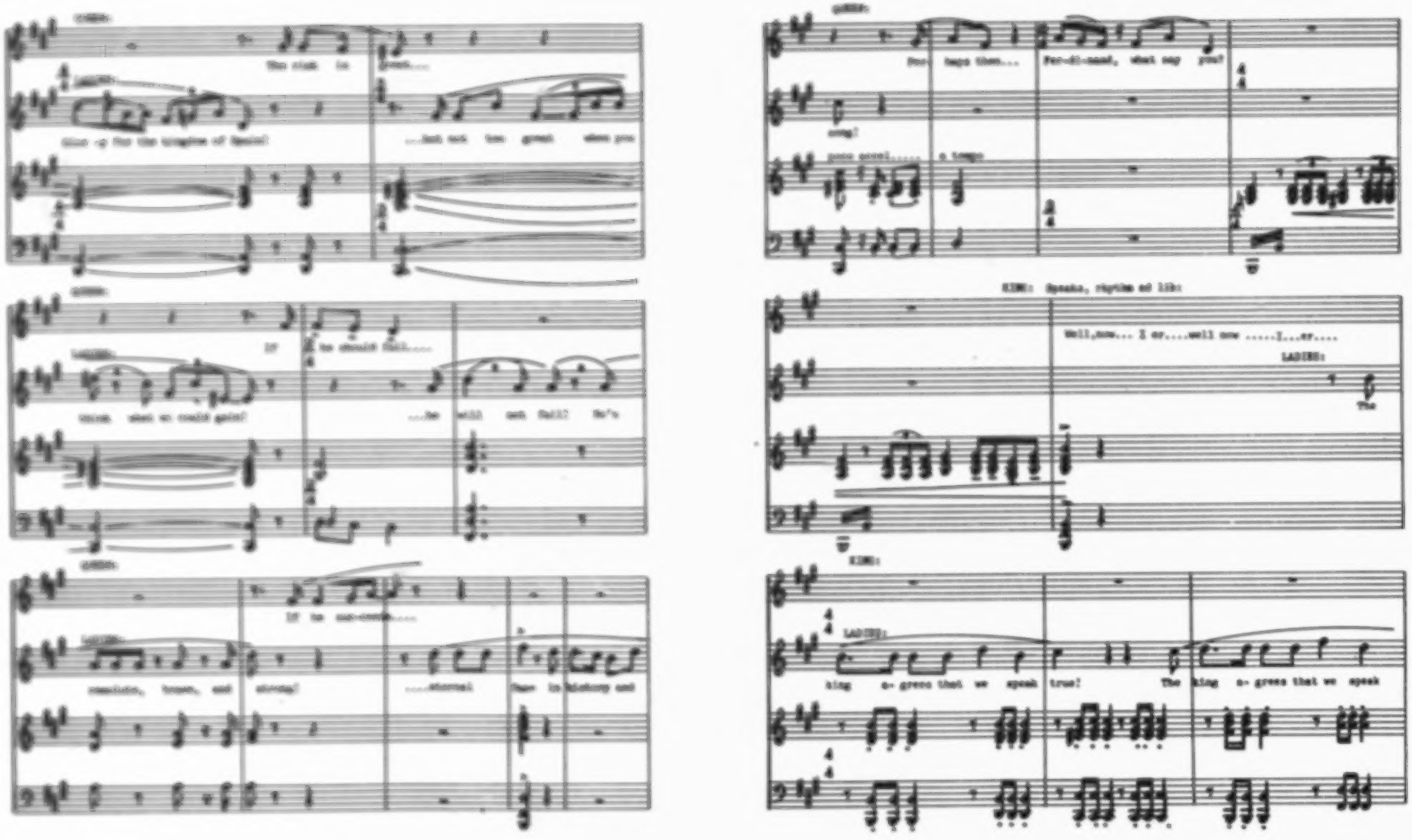
It is we who do the curtsying

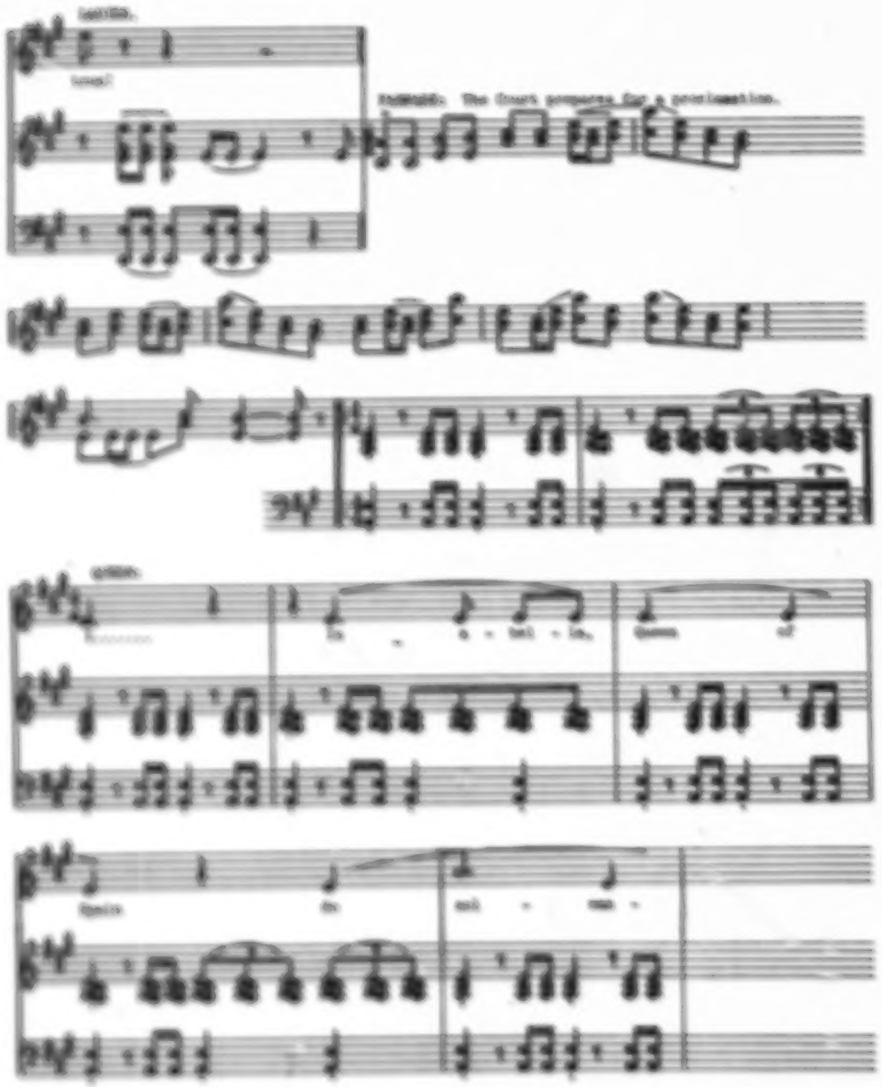
of the splendour of the reign.

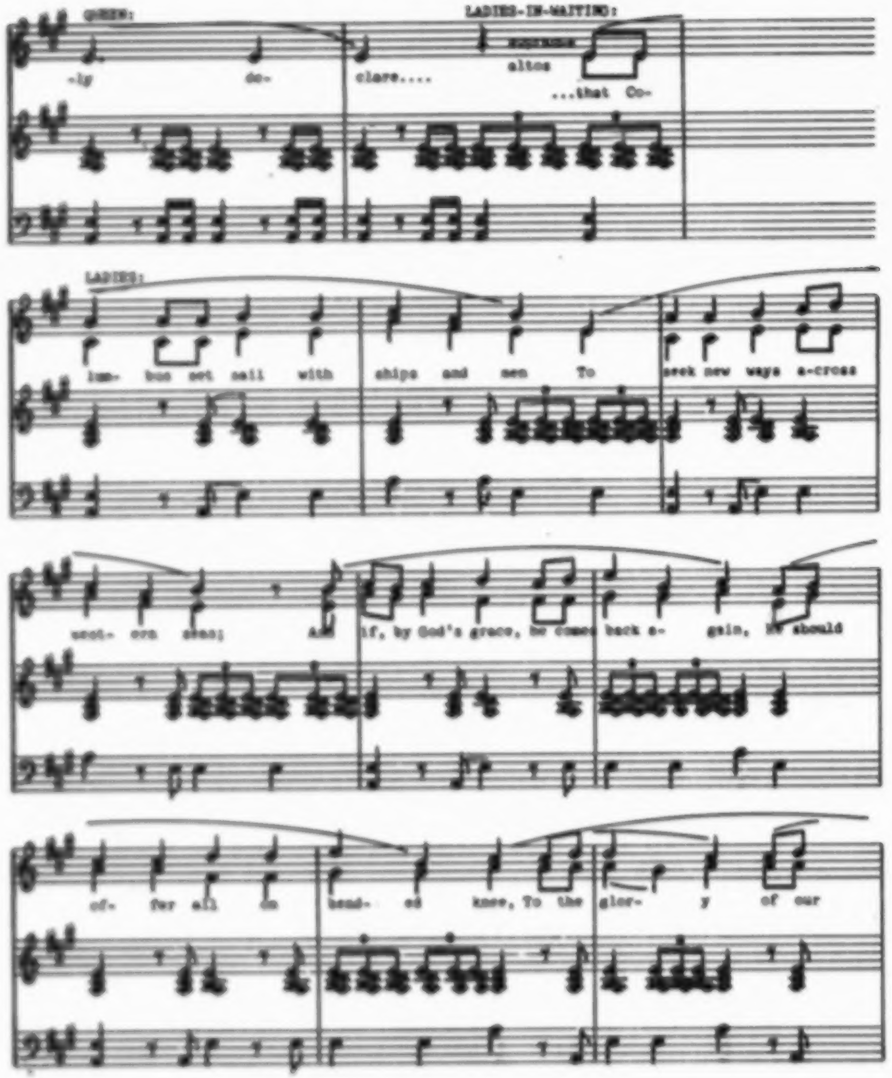


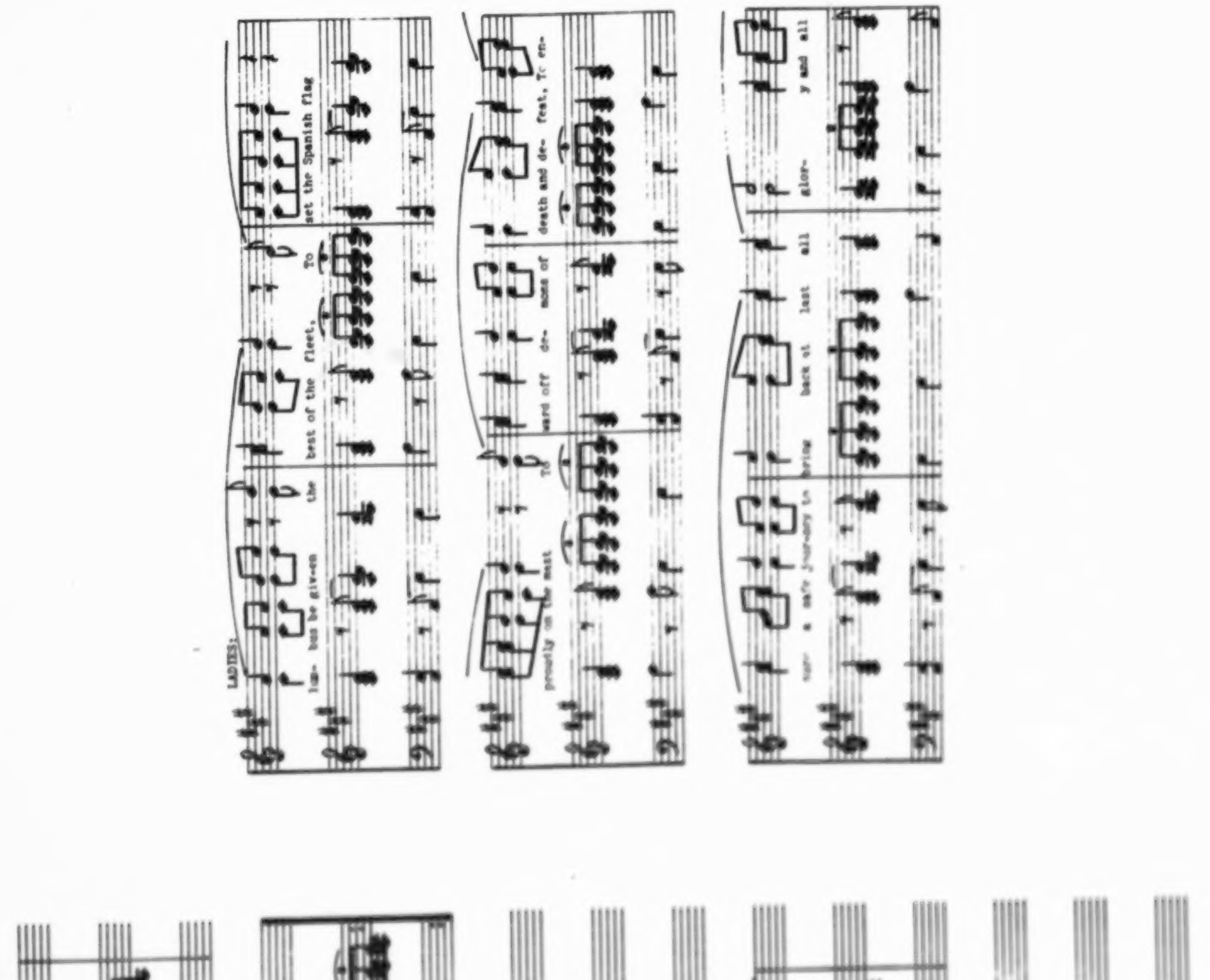


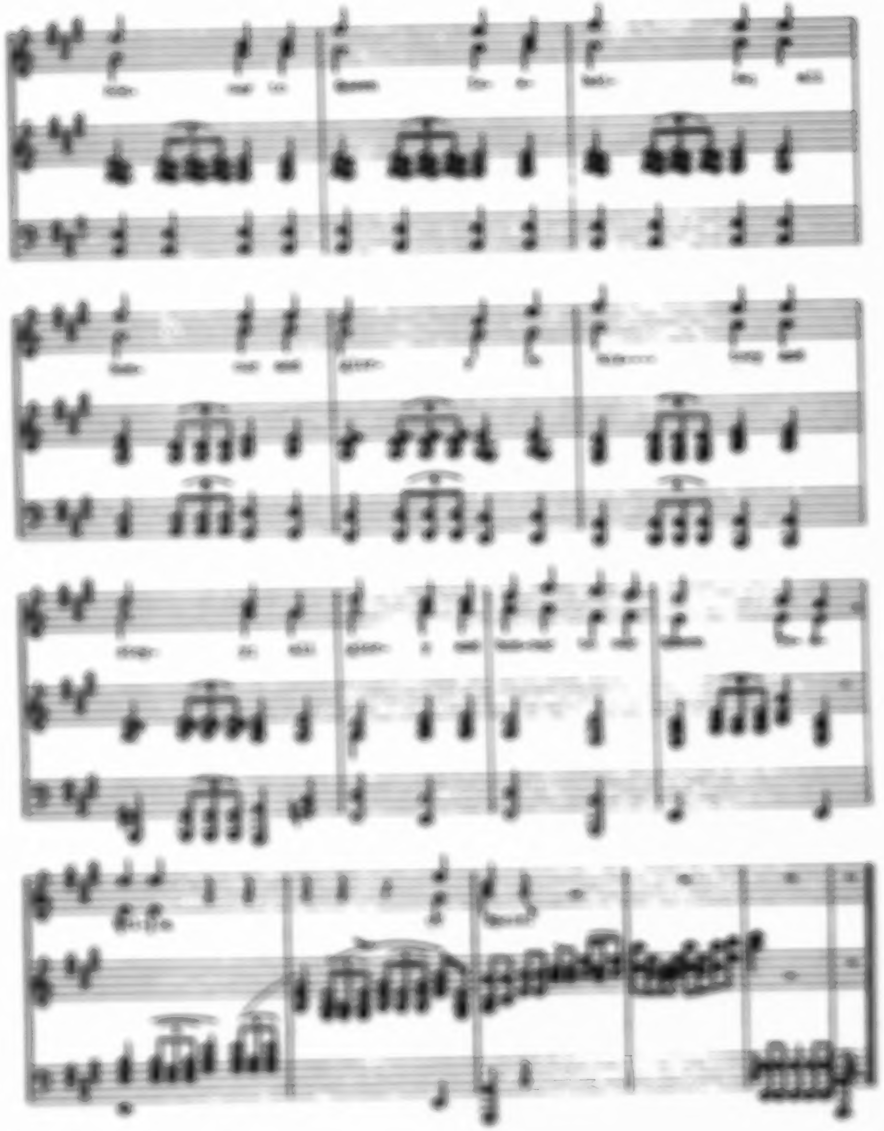

Christopher Co-lum - bus...?
...wants three ships to sail to Chi-na
This hold ad-
...hand-some, too!
gold to pay his bands.
...the price of glor - y.


QUEEN:
The risk is great....
LADIES:
Give up for the kingdom of Spain!
...but not too great when you
QUEEN:
If he should fail....
LADIES:
think what we could gain!
...he will not fail! He's
QUEEN:
If he suc-ceeds....
LADIES:
resolute, brave, and strong!
...eternal
fame in history and
QUEEN:
Per- haps then... Fer-di-nand, what say you?
song!
poco accel..... a tempo
KING: Speaks, rhythm ad lib:
Well,now... I er....well now .....I...er....
LADIES:
The
KING:
LADIES:
king a- grees that we speak true! The king a- grees that we speak


LADIES.
Love!
(MUSIC): The Court prepares for a proclamation.
QUEEN:
Is - a - bel - la, Queen of
Spain do sol - emn -


QUEEN:
-ly de- clare....
LADIES-IN-WAITING:
sopranos
altos
...that Co-
LADIES:
lum- bus set sail with ships and men To seek new ways a-cross
west- ern seas; And if, by God's grace, he comes back a- gain, He should
of- fer all on bend- ed knee, To the glor- y of our


LADIES:
Queen Is- a- bel- la, our Queen Is- a- ...
Isa- bel- la
QUEEN:
Queen of
LADIES-IN-WAITING:
LADIES:
Isa- bel be giv-en the best of the fleet, To get the Spanish flag
proudly on the mast To ward off de- mons of death and de- feat, To en-
sure a safe jour-ney to bring back at last all glor- y and all



Examination of the libretto has revealed a number of dramatic issues which appear and are resolved as shown in the illustration. Columbus finds himself opposed by Malo, the townspeople, and eventually the sailors, but supported, eventually, by the Court.

How can musical tension and conflict be found which will parallel the dramatic conflict and by so doing give expression to it?

You have observed the creation and resolution of tension through harmonic cadence, especially through the cadence V-I. In broad terms, it may be possible to bring about a coincidence of the resolution of dramatic tension with the resolution of musical tension through such a cadence. This may be possible not only in the small scale cadence, where we have a few measures in V harmony leading to a I harmony, but also by analogy on a larger scale where one piece may be in the key on the dominant of another--say song 1 is in G and song 7 is in C.

Take this a step further: since you notice that there are basically two opposing forces in the drama, you could give one key or a set of associated keys to one force and another set of keys to the other force.

Say, for instance, that in the first scene you give to Malo the key of C, and to Columbus the key of G. The key of G has one more sharp than C (and is felt to be a "brighter" key), so you could extend this relationship to say that the forces of Columbus' side will live in the "sharp" keys, and the forces of Malo will be at home in the flat keys. The musical question which will be the equivalent of the dramatic question number 8 is: in which key will the opera end? Malo's key or Columbus' key?

In Scene I, Malo will sing in the key of C and Columbus in the key of G. The crowd's song should be in Malo's key since they also oppose Columbus. This would give you the following key structure:

Malo	Crowd	Columbus	Crowd
C	C	G	C

The key of C predominates. But the dramatic conflict is not resolved by this scene; the people are not going to help Columbus; but he, undaunted, will seek help from the Queen. The flat keys should not have won. Somehow you need to give more weight to the sharp keys. If you add an overture in the key of G, it may set up a key relationship in which you are not sure whether G is V in the key of C, or C is IV in the key of G; i.e., you don't know whether this scene is in the key of C or G.

Overture	Malo	Crowd	Columbus	Crowd
G	C	C	G	C

Scene II is opened by the Ladies-in-Waiting who are pro-Columbus. They should therefore sing in a key with sharps in its signature. Since this scene shows triumph of the Columbus forces, the whole scene could be set in sharps and perhaps move further into the sharp keys as the Ladies persuade the Queen on Columbus' behalf.

Ladies

Recitative
Ladies vs Queen

Ladies and Queen

Scene III is mostly bad news for Columbus, and the flat keys should predominate. So, for instance, it could open in g minor, which has two flats. G minor follows as a consequence of the decision made in D major in Scene II, and is the tonic to D as dominant.

The work should finish in E since Columbus finally won through, and Scene III will consist of the final battle between sharp and flat keys until the scales are tipped when land is sighted, presumably in some very sharp key.

In What Ways Can the Text Suggest a Musical Setting?

An understanding of the action as a whole can suggest to you ways of laying out the musical structure of the whole musical play; in terms of a key scheme, for instance.

The setting of individual songs will be influenced by the character who is singing them and their function in the action. A character can be effectively presented through the choice of appropriate vocal range, rhythms, melody, and accompaniment.

The form of the song may be suggested by the form of the text. If the text devotes a paragraph or verse to a new idea, it may be appropriate to provide music which is in some way new, rather than a repetition of music that has been heard already.

Scene I

Malo's Song

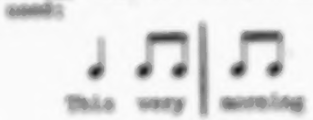
If Malo is a stolid, deliberate, slow-moving fellow, how can his character be expressed musically, keeping in mind the desirability of providing maximum contrast with Columbus?

Some possibilities: music which is slow-moving, has even rhythms, a melody which moves by step rather than by leap. If Columbus is a tenor (or alto), Malo could be a bass; if Columbus sings in major, Malo could sing in minor. (This would be "a" minor, the minor key with the same key signature as C major, the key decided upon for Malo and the crowd in the previous discussion.)

The text is in the form of four four-line verses. It would be possible to have the same music for each verse, or indeed, different music for each verse. The former alternative would be boring, the latter unnecessarily onerous for the purposes of this course, and of no special advantage in presenting Malo as a character. This writer chose to divide the text into two groups of eight lines, each set to essentially the same music, with the exception of contrasting settings of the last lines to provide greater finality at the end of the song than in the middle.

In this setting the musical statement coincides with the verbal statement, regarding the musical phrase endings, which coincide with the ending of a verbal idea. The melody of the opening lines was derived from a curve representing a spoken rendition of the lines. This curve was utilized in such a way as to provide a motivic nucleus of a step-wise third (e.g., C, B, A) and the remainder of the song was written by using the third in sequence, inversion, rhythmically displaced, etc. Lines 5 and 6 are a deviation of lines 1 and 2 and a different pitch level, and with a different harmonic accompaniment. Lines 7 and 8 expand the third to a fourth as a way of emphasizing Malo's emotional involvement at this moment.

The short interlude between lines 4 and 5 does not recur between lines 12 and 13 because there is a continuity in verbal idea in the latter instance which is absent in the former. Detail: Measure 1--the rhythm and melody used emphasize the word "morning," and to a lesser extent "very"; more than if the following rhythm were used:



The use of high A on the word "brightness" is appropriate because the note is itself bright in this context (measure 9).

Four two-measure groupings begin at measure 9. The basic structure here was originally a set of four falling thirds, beginning on A (measure 9), G (measure 11), F (measure 13), and D (measure 15). Notice how the melody has been varied to avoid monotony and to provide focal points and climax. Lines 5 and 6 have a modulation to F. This allows for the modulation back to II in a minor, a progression which underlines Malo's feelings about being away from the sea for so long.

Scene I

Columbus' Song

Columbus is an imaginative, dynamic character. Taking into account our decisions about the music for Malo, what sort of music could express Columbus' character and contrast him with Malo?

Music with a fast tempo, leaping melody, vigorous accompaniment, a high range, major key--these are some possibilities.

The text is in the form of four four-line verses. The first and last verses deal with Columbus' present situation, and the middle verses with his dreams. This suggests the possibility of repeating the music of the opening verse in the closing verse, and linking verses two and three musically.

In the setting provided, a three-note motif predominates, being a perfect fifth and a neighbor note to one of the notes comprising the fifth. These three notes are juggled to provide various configurations. The effect is to provide a vigorous leaping melody. Sometimes the fifth is contracted to a fourth; e.g., in verse 2. Verses 1 and 4 are set in G major; verses 2 and 3 are in the dominant of G major, D major and are thus linked musically. Detail: Line 3--notice how the main syllables of the words, "excitement," "adventure,""fame," are emphasized by being placed on high notes approached by leap.

In general, notice how the accompaniment changes texture slightly to add weight to what Columbus is saying; e.g., lines 9 and 10, line 6.

In the last verse, the word, "too," is emphasized by being placed on the first beat instead of the fourth beat of the preceding measure as would be usual in this piece. This produces a more vigorous rhythm.

Scene I

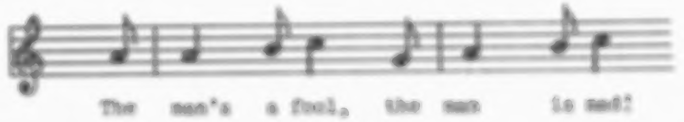
The Man is Mad

This song expresses the crowd's reaction to Malo's description of Columbus and to Columbus' own story. The people are unanimously and enthusiastically of the opinion that Columbus is mad. The song is both a statement of this belief and a taunt to Columbus.

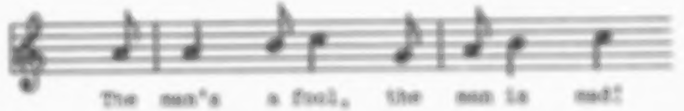
This song concludes the first scene; therefore, it may be useful to write in a form appropriate to a finale; i.e., a form providing both a sense of climax and completion. Because the text is short, the ideas so simple, and because of the unanimity of the presumably somewhat unsophisticated crowd, it occurred to this writer to set the words as a canon, or round. In this case we will set the second appearance of the song before the first.

Our previous experience with harmony involved primary chord harmony only. Here we need to create vigor through harmonic change. The change must occur as a pattern which repeats itself at the point of each new vocal entry. The obvious possibilities here are a pattern which is the length of one line of the text and therefore allows for the use of 4 lines/1 line = 4 voices; or is the length of 2 lines of the text and allows for 4 lines/2 lines = 2 voices.

The writer chose a pattern which is basically one-half a line in length but chose to have only 4 voices. The half-line pattern was later slightly varied on its repetition so that it becomes a 1-line pattern. The people here really are taunting Columbus, especially with the repetitious first line: "The man's a fool, the man is mad." This line was set at the top of the song's range so that it would be heard repeating above the other voices. The harmonic pattern was simply C: IV-I.



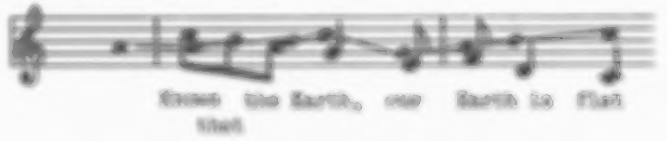
A vigorous rhythm seemed called for and 6/8 was chosen. Note that with this harmony the "b" is a passing note; however, it would be possible to harmonize this with, for example, V. The second measure was later amended to this effect, and a new rhythm introduced which emphasizes this new harmony and gives a "kick" to the line.



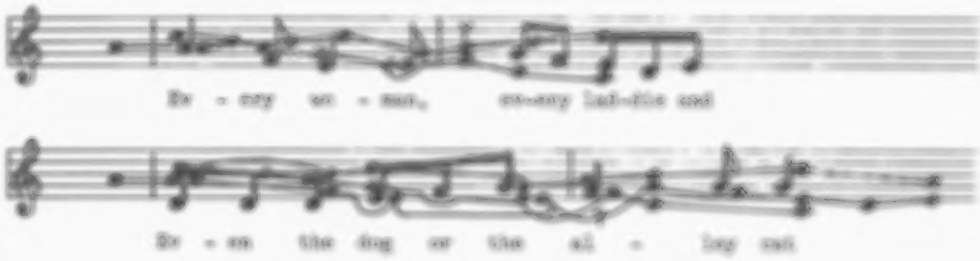
The other three lines must be set in such a way that they combine harmonically and melodically and rhythmically with the first line but are differentiated from it in rhythmic and melodic contour so that they have a maximum interest in their own right.

Because the song is being sung by a presumably not very vocally agile chorus, the range should not be too large and the vocal lines not too difficult to sing. The top of the range can be set at high C, the bottom around low C, which is in the center of average vocal range.

The last line of the song will conclude the scene and in the round will appear at a time when the first line is no longer being sung. It should therefore be strong in outline. To allow maximum freedom in composition, this line was written next.



The other lines must now be fitted into the rhythmic and melodic "spaces" left by these two lines. To find lines that do this and still have some melodic interest is not easy. The examples below show possible solutions. Notice the slightly amended words in the second phrase which allow for more rhythmic independence and also allow the filling of the rhythmic gap at the end of the even-numbered measures.


Ev - ery wo - man, ev-ery lad-die and
Ev - en the dog or the al - ley cat

Notice that because in this simple harmonic context only a few notes are available at any one moment, some pitches are sung by more than one voice simultaneously; however, the same two voices never sing in unison on successive notes. Note also that the low C, the final goal of the melody, is not reached until the end of the verse.

At the end of the round, the first three lines have dropped out. These voices then keep repeating the fourth line. For purposes of climax, the inversion of the last line is introduced by the bass voices (moving in contrary motion to the original form). Both these forms of the line are then doubled at the third above. These steps are introduced one at a time to progressively thicken the texture. Notice the repetition of the complete pattern of the round to provide length and a central point of stability before its "disintegration" begins.

The previous occurrence of this song follows Hale's song. If "The Sun is Mad" were presented as a round at this point, its impact as a round on its last appearance would be lost. Here it can have sufficient impact as a chorus unison song; however, in this case, the accompaniment must be carefully handled since the contrapuntal interest of its setting as a round has been lost. This is an especially difficult problem because of the repetitiveness of the harmonic pattern. Our need, then, is to find a bass line, and perhaps some minor harmonic variations, which will carry us through the implied cadence at the end of each line of poetry to the cadence at the end of the verse.

In measure 1, the first inversion of the C chord is used. This permits continuity into the second measure where the C is placed in the bass to give emphasis to the word "mad."

Lines 2 and 3 tell us who knows that the earth is flat; i.e., they both have the same function in terms of the poem. We have linked the melodies of the two lines rhythmically by varying the words in such a way that a series of eighth notes leads straight into the fifth measure. A harmonic link is established by subverting the harmonic stability of the C chord in measure 4 by changing it to a passing A minor chord on the last eighth note.

Notice that this begins a long descent of the bass which is not complete until the final cadence in measure 8. In measure 5, the descent is continued from F to E, through an octave change of register on E to D in measure 6, and so on. Stasis (and completion) is avoided in measure 6 by making the C chord into a dominant 7th of the following F chord in its most tense and unstable inversion, with the "7th" in the bass.

Finality is achieved in the last measure by making some leaps of 4th and 5th in the bass after a series of moves in the smoother intervals of a second and third.

The second verse was set in such a way that advantage was taken of the original method of composing this melody as four separate elements of a round. As in the first line of the poem, the two segments have exchanged places, in the musical setting the measures 3 and 4, and 4 and 6, have exchanged places. The last line of the music has been inverted or turned upside-down. This gives a more conclusive ending to the song and sets a precedent for the inversion at the end of the round.

Notice that the rhythm has not been used in the second measure of this verse. To use this rhythm would have meant emphasizing the word "a," which is too neutral to justify such favored treatment.

Continuity has been achieved in the accompaniment through a variation of the treatment given verse one. The descent does not begin in measure 3 but in measure 4, after an ascent from measure 3. The continuity is enhanced by the running rhythm and by what is essentially a movement completely by step until the final cadence.

Scene II

The libretto for Scene II turns the customary situation at Court upside-down. The Ladies-in-Waiting are in charge, and the petitioner, Columbus, does not appear in Court, but has his case "presented" by the Ladies-in-Waiting, who have already decided in his favor.

Since the libretto was written with tongue-in-cheek, the composer decided to write music to match. It occurred to him to write in a pseudo-Spanish idiom, since this is the Spanish Court. He listened to a number of recordings of Spanish music, including flamenco music, taking note of the rhythms, melodies, and harmonic progressions used. Students might like to experiment with this approach: after deciding upon what needs to be expressed in their own music, listen to a good number of recordings to discover music which seems appropriate to the expression of these ideas, and try to analyze its construction. Then attempt to write music which sounds similar.

The composer imagined Scene II opening with a procession into Court, which would be accompanied by instrumental music. The Ladies-in-Waiting introduce themselves in their song; this song would be followed by a short instrumental section, based on the processional music, in which they would group themselves around the Queen preparatory to the section in which they petition the Queen on behalf of Columbus. Once the Queen is persuaded, a fanfare precedes the formal proclamation of the last song. The scene closes with a repetition of part of the fanfare.

The Ladies-in-Waiting Song

This song is set in D major in accordance with the overall key-scheme already decided upon. The rhythm is based on the habanera. Since it is consistent with the usual sound of the habanera, and also with the fact that the Ladies-in-Waiting are likely to have some skill in music, and since it is not technically difficult to write, the Ladies-in-Waiting sing in two parts, alto and soprano, moving in parallel thirds and sixths. The libretto, with three groups of four lines and two groups of three lines, suggests an AABBA or ABBA form.

Verse 1 widens into two pairs of lines. The musical solution provided here reflects the verbal idea in which lines 3 and 4 expand on lines 1 and 2: lines 3 and 4 are set to music which is basically a musical sequence of the musical setting of lines 1 and 2, but with an ending that contrasts so that there is a half-cadence at the point where the verse is half-finished, and a full cadence when it is complete. Notice that, roughly speaking, where the music moves upwards in the first two lines, it moves downward in the last two.

The three-line division in the center verses was maintained, but the words were set in such a way that the music continues through without a really strong cadence to the beginning of the last verse. The melodic curve rises to and falls away from the mid-point. The section ends with a half-cadence in D major, which leads into the last verse.

The repetition of the last line of the last verse adds finality. Notice that we avoid setting the word, "reign," on do the first time, and so avoid bringing the song to a halt at that point.

The Petition

This could be set as a song, spoken, or as what is known as recitative, which is something like speaking on pitch. You must make your own decision about this. The example provided shows the words set as recitative.

The key, F-sharp minor, is the minor key with the same key signature as A major, the key in which the last song of the scene is set. F-sharp minor was chosen because the range of pitch was appropriate to the composer's musical ideas, and because it allows an easy transition into A major.

The harmonic progression is based on a very common progression in Spanish music: the chords based on the descending tones I, VII, VI, V of the minor scale. When V is reached, it is "prolonged" by being alternated with the chords based on its neighbor notes IV or VI until you are ready to move into A major. The latter is achieved simply by substituting the chord on V of A major for the chord on V of F-sharp minor at the appropriate moment. The melody is based on the pitch curve of a spoken rendition of the words.

The rhythm is based on the rhythm of the words when spoken. Notice that the meter changes constantly and that the beat is divided into 2's and 3's as well as 2's and 4's. The rhythms of conversation are not regular. However, composers such as Mozart wrote in regular meters and rhythmic divisions and left it to the singers to make appropriate variations of the rhythm. You may find it more convenient to do this, but in any case make as accurate a transcription of someone's spoken rendition as you are able.

The Fanfare

Both melodies use tones of the chords on I and V only. The lower melody follows the upper melody in direction except that it moves in intervals of a different size; e.g., when one melody leaps, the other may move by step.

You may decide that you don't need a fanfare at this point. The composer felt that it added a little appropriate pomposity to set the mood for the "formal" proclamation.

The Proclamation

As decided already, the key is A major. The Queen, who has a low, thick voice, sings on a monotone. The Ladies-in-Waiting sing in parts based on the idea of the fanfare and contrast in range and melody with the Queen. The rhythms are based on flamenco rhythms.

Because the dramatic issues of Scene II have been resolved at this point and because this is the finale, and because of the formal nature of the verbal ideas, the music has been made very stable through repetition, exact or sequential, in the melody, and also in the harmonic progressions and in the rhythmic patterns. The repetition reaches the point of monotony at the end of the song, and so the sudden stepwise movement of the bass and the harmonic progression produce a dramatic and climactic effect appropriate to the finale of the scene.

Observe the use of what is known as a pedal point. The tonic, A, is present at times when the harmony changes to the chord on V which of course does not contain A. This device can be used to produce tension or stability according to the context. Tension can be produced because A clashes with the harmony. Stability can be felt because the "home" tone of the key, the strongest, most stable tone, is always present.

APPENDIX B

THE READING PROGRAM

READING MUSIC WITH SHAPED NOTES

(A visual aid to develop readiness to
read music using "sol-fa" syllables.)

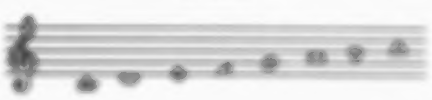
Singers who use sol-fa syllables to read music are making use of a phenomenon in learning called conditioning. It is known that if one repeatedly sings any given musical interval, and at the same time applies a distinctive syllable name, such as la and mi or sol and ti, to each pitch making up this musical interval, the two coexisting elements--the pitch and its label--become "associated." Once this particular response pattern has been established, it is merely necessary for the musician to determine from the musical score which note is do or mi or sol in order to derive the corresponding pitches represented by those syllables. This musical conditioning may be considered as a "vocabulary of sol-fa-ness." It is to obtain this prerequisite vocabulary for music reading that this portion of the experiment directed its energies.

A "musical" vocabulary resembles the "speech vocabulary" required as reading readiness, and the two are acquired in much the same way, for both are dependent upon much accurate practice. A child would learn the use of the word "dog" to represent the animal very slowly, indeed, if on Monday his mother had facetiously called the dog a rabbit, on Tuesday, a cat, and on Wednesday, a lion! Similarly, the vocabulary of sol-fa syllables develops slowly if a child, by chance, calls the pitch relationship of do-sol by the name of do-mi or do-la or anything but its true name. Just as a dog must always be called "dog," so a pitch relationship must always be called by its right name if one would establish a vocabulary of sol-fa syllables with optimum speed of learning.

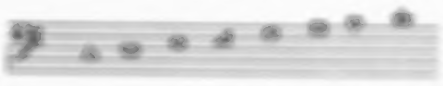
Many teachers attempt to obtain this prerequisite vocabulary by introducing the sol-fa syllables as a second verse to a familiar song. Unfortunately, the problem of teaching songs to a point of familiarity by rote is so time-consuming there is seldom enough time to teach this second verse to establish the feeling of "sol-fa-ness," and here this system of reading commonly bogs down.

In order to provide opportunity for accurate practice in this preliminary step towards music reading, this appendix employs a vivid, visual aid to assist you in determining the syllable names of the pitch relationships. The crux of this method is that it employs a differently shaped note-head to represent each note of the scale, thus providing the positive naming of the proper syllable for each coincidental pitch relationship. Here are the symbols to be used.

G Clef



F Clef



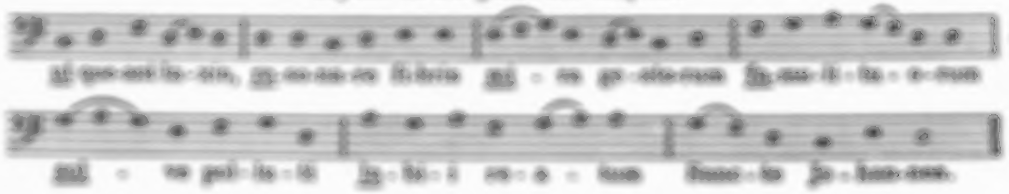
The first European songs to be written down were Greek songs; and it is from the Greeks that we have learned to call notes of different pitch after the first seven letters of the alphabet--A,B,C,D,E,F, and G. Greek scholars who studied music as a branch of mathematics measured the distance from one note to another between each of the eight rungs in a ladder of sound. The step between rungs B and C and between E and F is only half the size of the other steps: it is called a semitone. A to B, C to D, D to E, and F to G are whole tones. We can see and hear the difference on the piano; it has no "black note" between B and C or E and F.

The ladder, or scale, of seven notes and the octave, which we have inherited from the Greeks, can begin on any note. The semitones (B to C and E to F) come on different steps or degrees of the scale, according to what the first note has been. A scale sounds the way it does due to the arrangement of half steps and whole steps comprising that scale. A chromatic scale, for example, is formed by dividing the octave into twelve equal parts.

Another scale--the whole tone scale--divides the octave into six equal parts, a full tone apart.

Much music of the Western civilization subscribes to a scale whose pattern is a combination of whole steps and half steps arranged in this particular order: do--re--mi^fa | sol--la--ti^do. It is called a major scale. It may be found on the white keys of the piano by starting on C.

Hymn to St. John the Baptist


Ut que-ant la-xis, re-so-na-re fi-bris Mi - ra ges-to-rum fa-mu-li tu-o-rum
Sol - ve pol-lu-ti la-bi-i re-a-tum Sanc-te Jo-han-nes.

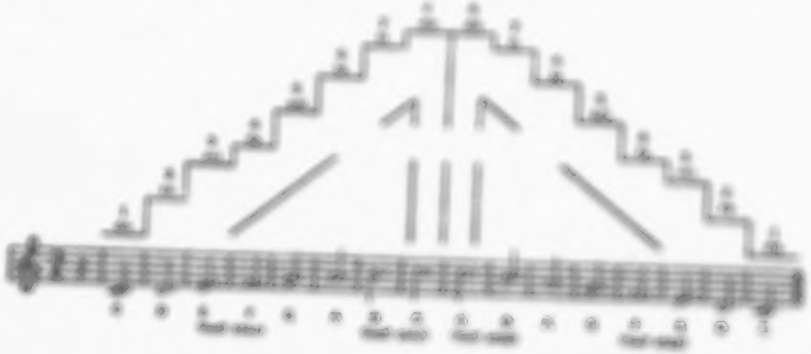
Some musical countries in Europe--France and Italy in particular--prefer to name the lines and spaces with the initial syllables of each line of the Hymn to St. John as Guido, the Monk, did. These syllables were originally derived from the words of a Latin hymn, which is quoted above, and their use for the first time is attributed to Guido of Arezzo. Observe that the first six lines of the hymn start on successive scale degrees, and that our syllables are derived from the first syllable of each line of the text. Ut was later changed to do, and ti was added.

Guido's staff of four lines has been increased to five, but his practice of adjusting the line spaces to fit the half steps as they occur in the Hymn to St. John is used throughout the world.

The idea, which teachers sometimes use, that the staff is a musical ladder is not too satisfactory unless one is prepared to agree that the rungs of such a ladder are not equi-distant. Since the time of Guido, the staff has been adjusted so that the pitch distance between E and F (mi and fa) and B and C (ti and do) are but half the distance of the remaining adjacent lines and spaces.

As a consequence, we may say that only when do is placed on C do the half steps of the major scale coincide with the natural half steps built into the staff.

Of course, one can form this pattern starting on any note by using combinations of white and black keys. We will use the syllables do-re-mi-fa-sol-la-ti-do to sing this scale no matter which letter-named notes are used in building it. In other words, do will be the first tone in the major scale rather than always representing "C." This is the "movable do" system of solfeggio used almost entirely in England and America.



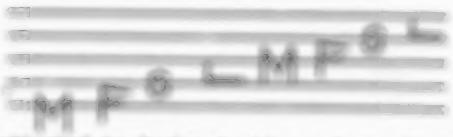
If you have carefully observed the arrangement of whole steps and half steps in the major scale, you will notice that it is comprised of two identical four-tone scales (tetra chords) with a full step separating them:

do—re—mi^fa | sol—la—ti^do

In early American singing schools originally only four syllables were used which were repeated in sequence:

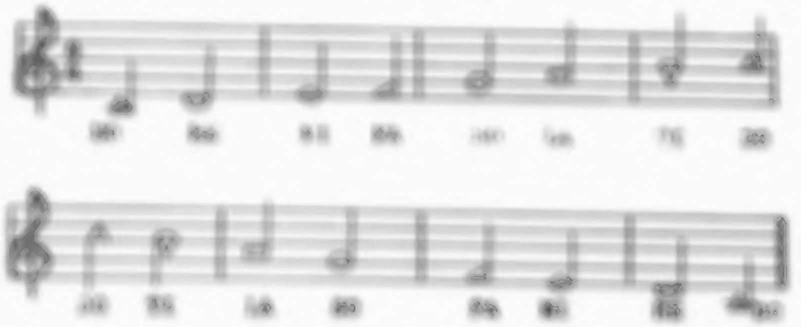
C D E F | G A B C
fa sol la fa | sol la mi fa

(Actually, the syllables used were mi-fa-sol-la mi-fa-sol-la.) Music was then symbolized by writing the initial representing each syllable on the staff.

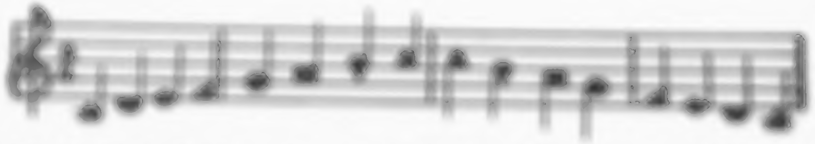


When shapes were attached to designate time values, it appeared feasible to modify the letter into a "shaped note". Thus, M became ◆, F became ▶, S became ●, and L became ■. In time, three additional shapes were added to differentiate between the two tetrachords, with the do being given the Greek d or delta sign ▲, re, a half circle ◡, and ti, shaped like a top ▼.

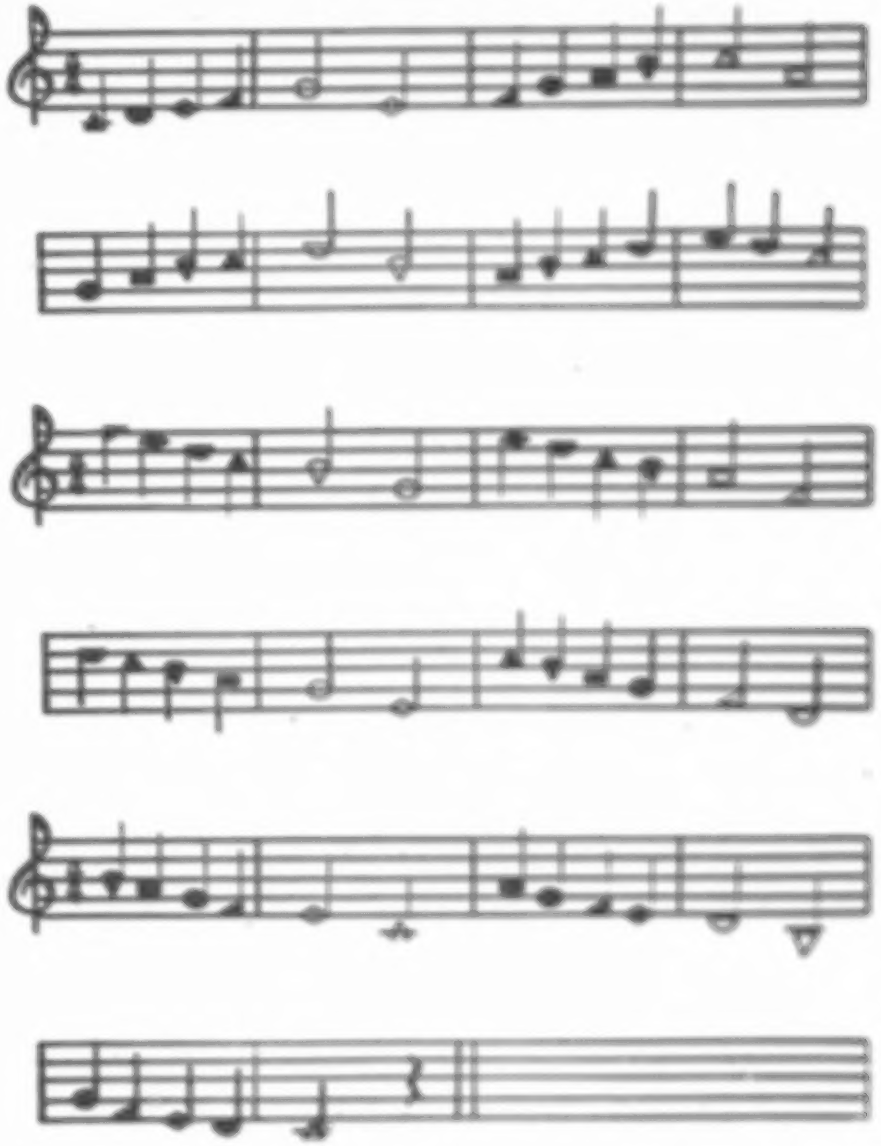
We propose to use these shapes also in this experiment, not only to hasten the acquisition of a "sol-fa" vocabulary but also because this visual representation of sound relationships will make possible insights into harmonic structure, key relationships, modulations, and modes.



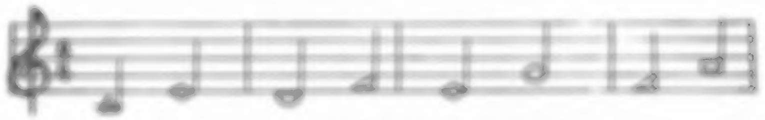
Learn the shapes as quickly as you can. With these seven symbols you will be able to read music of some difficulty with but a little initial work.

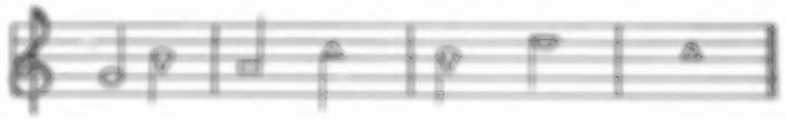


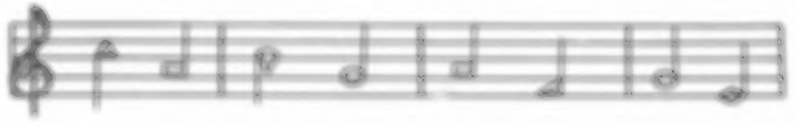
The simplest melodies, of course, are those that progress along a step-wise line. Melodies are made up of step-wise progression and skips. Skips quite frequently follow a chord-line; that is, skipping a note in between. This skipping of a note in between creates a melodic interval called a third. Many of our songs are based upon, or include, this common skip of the interval of the third. The exercises below are to prepare the student to sing this common interval as it occurs in the pieces to follow.

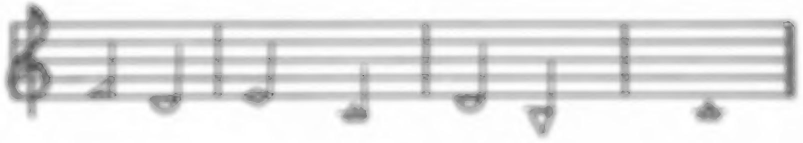


In the previous exercise, the first few sounds are used time and time again at different pitch levels. This is called a sequence, a sequential repetition, and the phrase which is repeated is called the pattern. The whole of the tune is built from this pattern, all except the cadence. The melody on the previous page is a simple scale pattern, but the following tunes show that the patterns may be of any shape or length and the difference in pitch between the repetitions of the patterns may be any distance or interval.

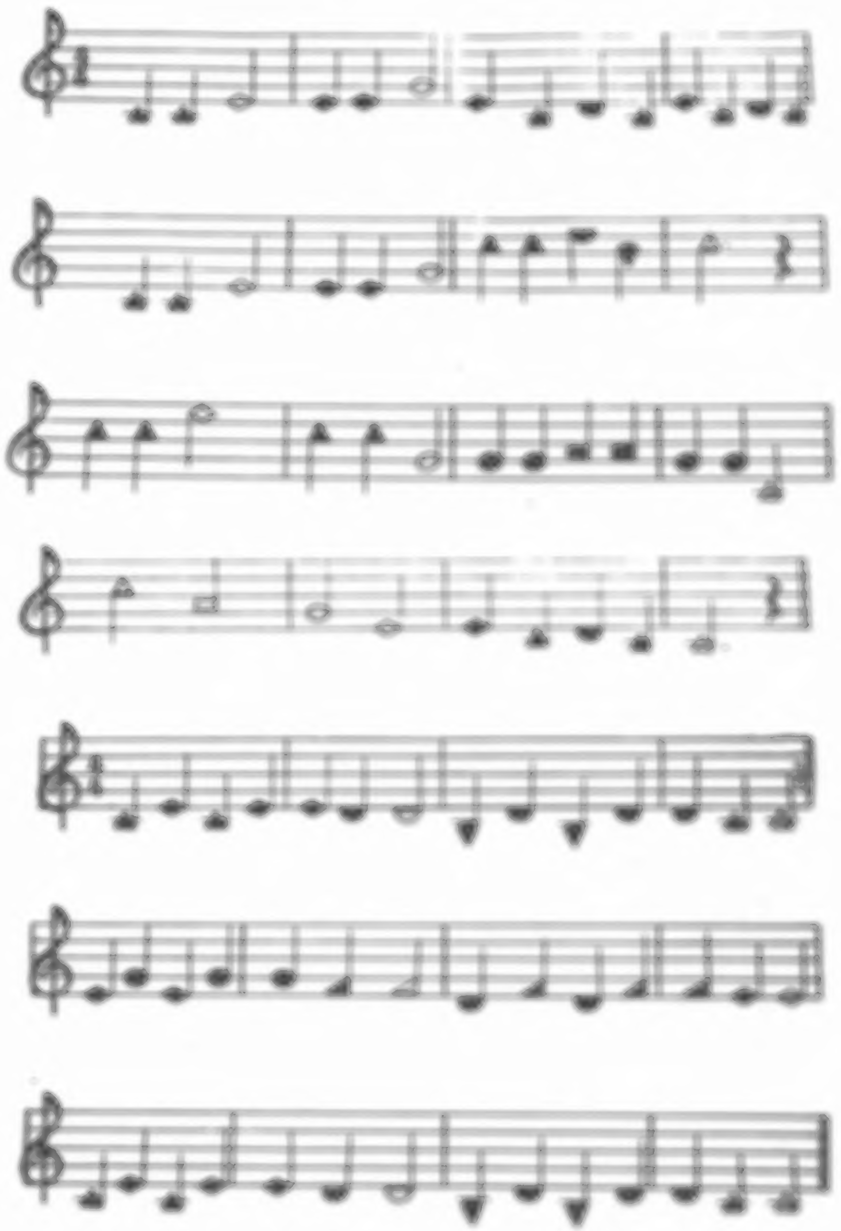


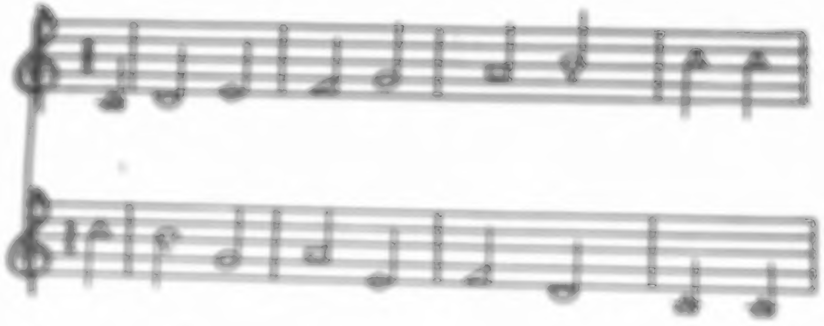


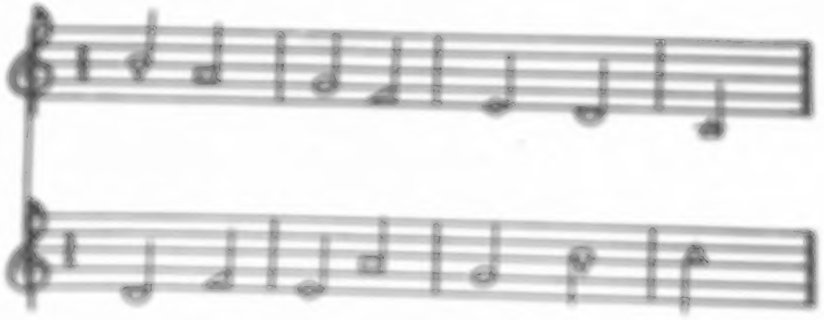




In musical language, the distance between tones is called an interval. Intervals are reckoned by counting inclusively the degrees measuring the distance between tones. Thus, do and do is called a unison or prime. Do to re is called the interval of a second. Do to mi, counting inclusively, is the interval of the third. Thirds are very common in music as they comprise chord-line melodies. Expertise in singing thirds will be very helpful in sight reading music.



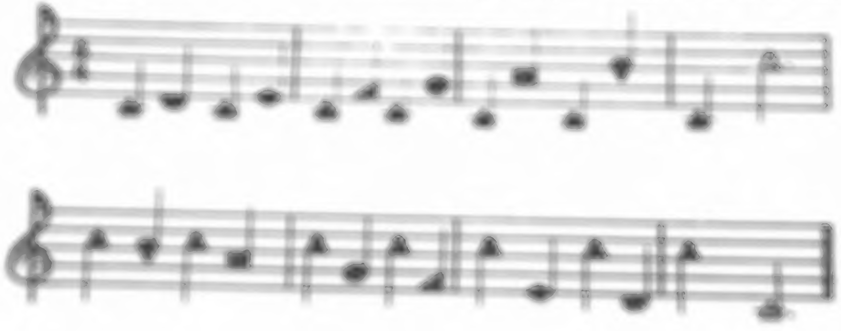




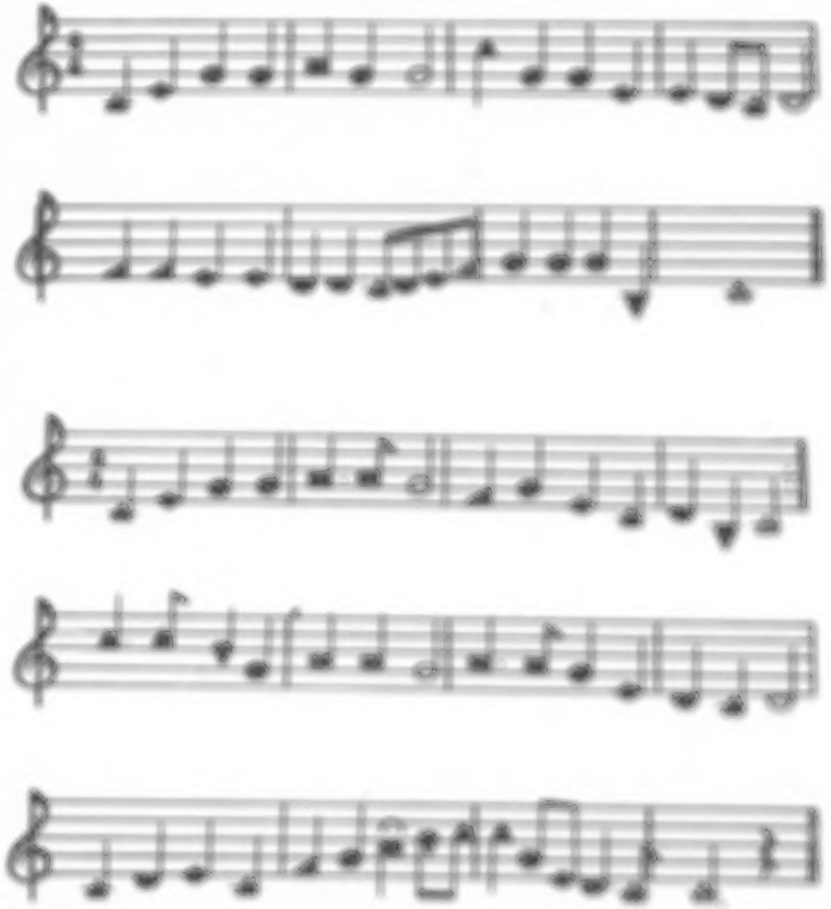
Intervals

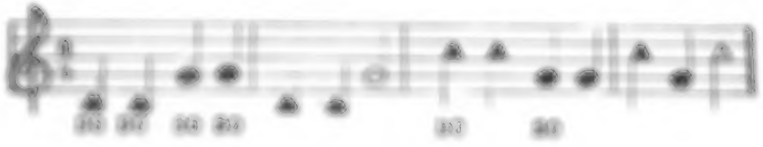
Here are all of the diatonic skips you have sung so far. Sing the patterns first with sol-fa syllables and then with these words:

do mi mi sol do fa do sol do la do ti do do
Maj.3rd Min.3rd perfect fourth perfect fifth Maj.6th Maj.7th perfect octave



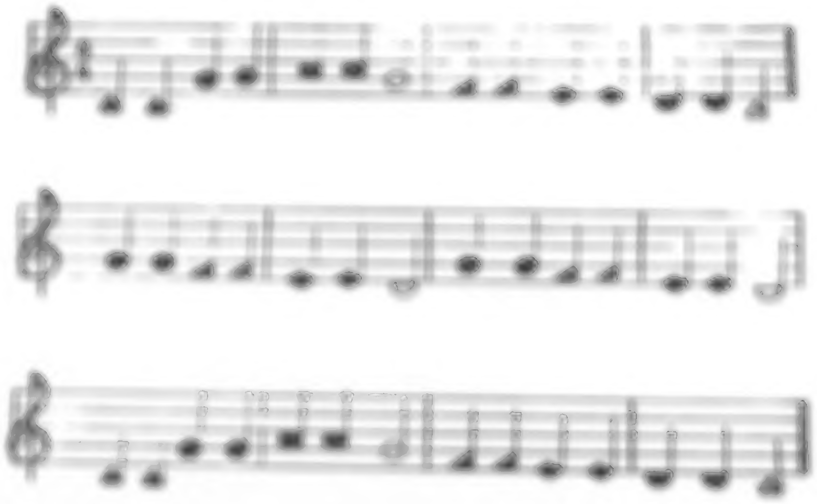
Thirds built upon thirds are called chords. A chord by definition is a group of three or more tones erected in thirds and performed simultaneously. A single voice may sing chords only in arpeggio or broken chord form. Since much music is built upon broken chords, practice should include chord-line melodies. Here are two examples:

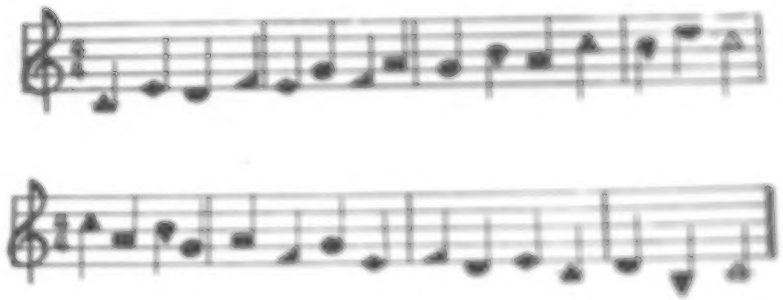


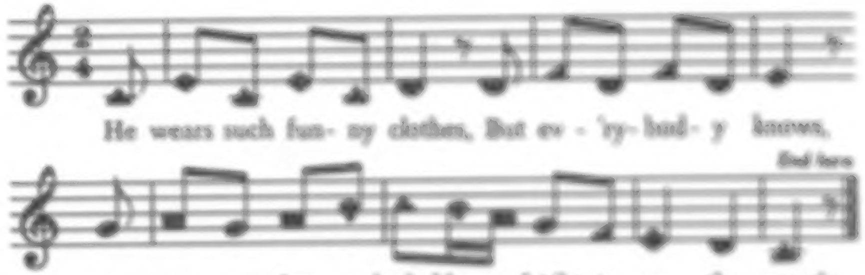


Probably as important as the skip of the third is the skip of the fifth which also is a part of a chordal skip from the first to the fifth note in the scale.

Practice on this interval is essential to develop the feeling of cadence, because the so-do relationship is very common at the ending, or cadence.



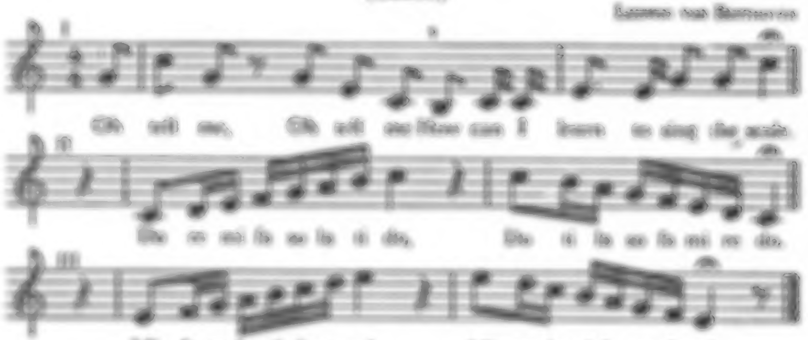



He wears such fun- ny clothes, But ev - 'ry- bod- y knows,
End here
A scare- crow has to look like a fright to scare the crows!

The first germ of an idea in melody is a "motive," which is generally only a few notes in length. This motive must be developed and lengthened skillfully so that it grows into a melodic phrase or sentence. A small complete musical idea is called a phrase and is made of incomplete parts called motives. The initial notes in a phrase are generally the most important since they are the motive, or building blocks, of which the phrase is made. However, it is not the motive that is important in a good melody; it is how the phrase is continued.

The Scale
(Canon)

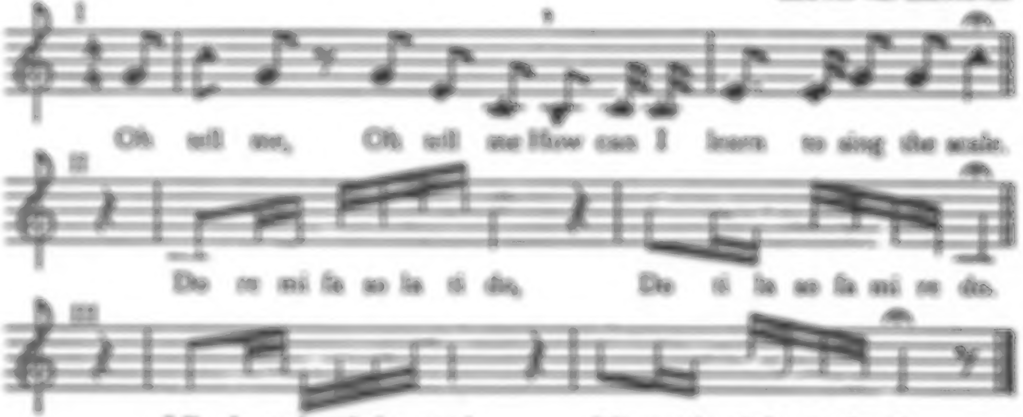
Ludwig van Beethoven


I
Oh tell me, Oh tell me How can I learn to sing the scale.
II
Do re mi fa so la ti do, Do ti la so fa mi re do.
III
Mi fa so la ti do re mi, Mi re do ti la so fa mi.

In order that you may also begin to associate which line or space corresponds to the sol-fa syllable in the key of C major, you will be asked to write in the proper shapes for the notes which are missing. The first of these songs will be "The Scale" song.

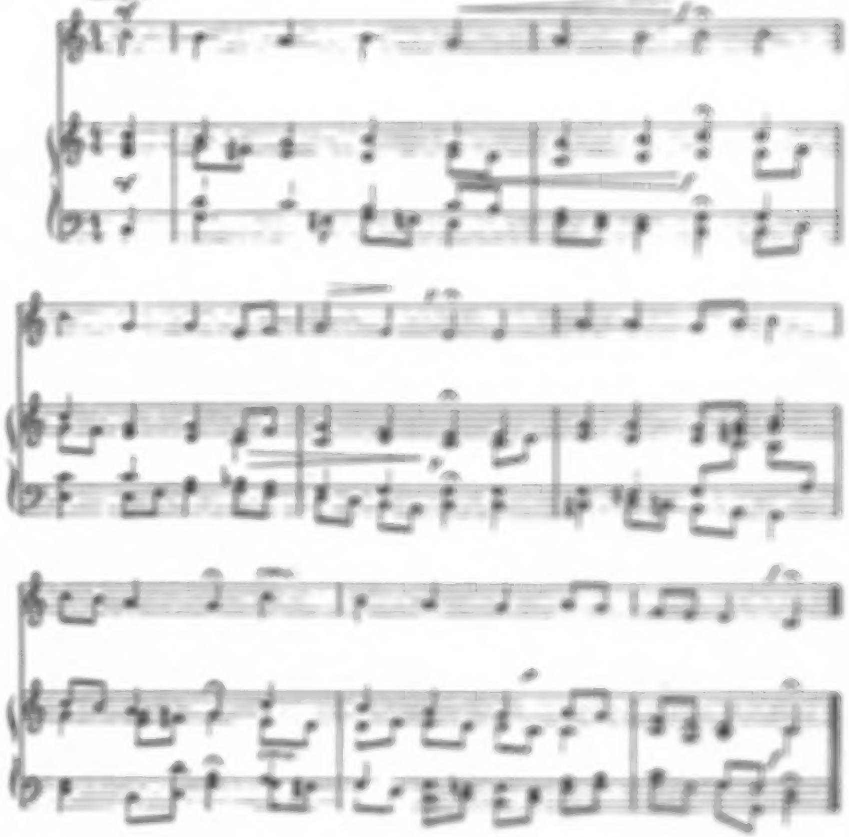
The Scale
(Canon)

Ludwig van Beethoven


I
Oh tell me, Oh tell me How can I learn to sing the scale.
II
Do re mi fa so la ti do, Do ti la so fa mi re do.
III
Mi fa so la ti do re mi, Mi re do ti la so fa mi.

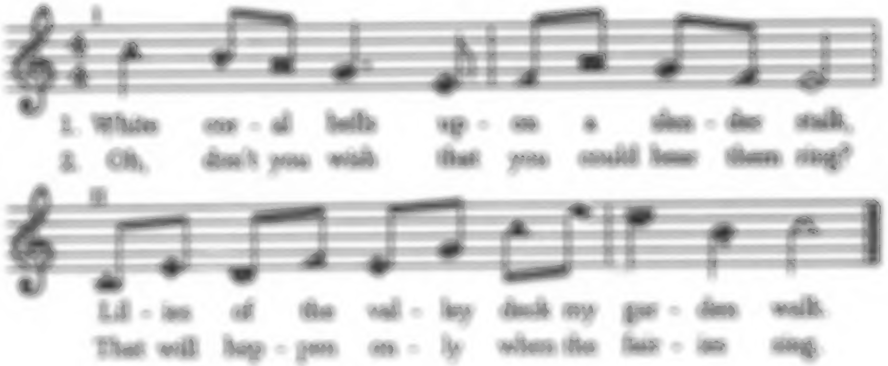
From Heaven Above (Christmas Chorale)

Melody by Martin Luther(?)
Set by Johann Sebastian Bach



White Coral Bells

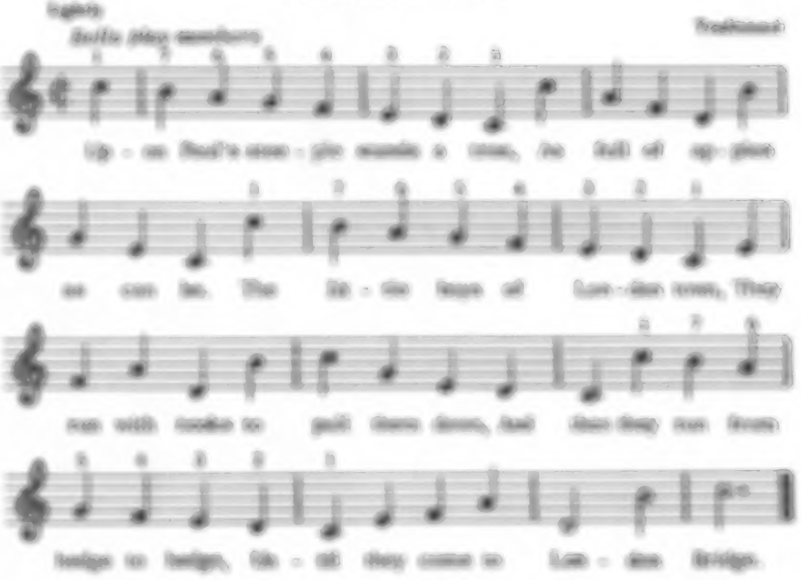
TWO-PART ROUND


1. White cor - al bells up - on a slen - der stalk,
2. Oh, don't you wish that you could hear them ring?
Lil - ies of the val - ley deck my gar - den walk.
That will hap - pen on - ly when the fair - ies sing.

Most of our music has been created in a melodic style which is based upon the vocal line; i.e., scale passages with no large skips and no sounds outside the range of the human voice. Continuous stepwise movement is boring. The melodic line which never skips hides behind the security of the scale line. The skip, which supplies the dramatic element in melodies, is required of an interesting melody.

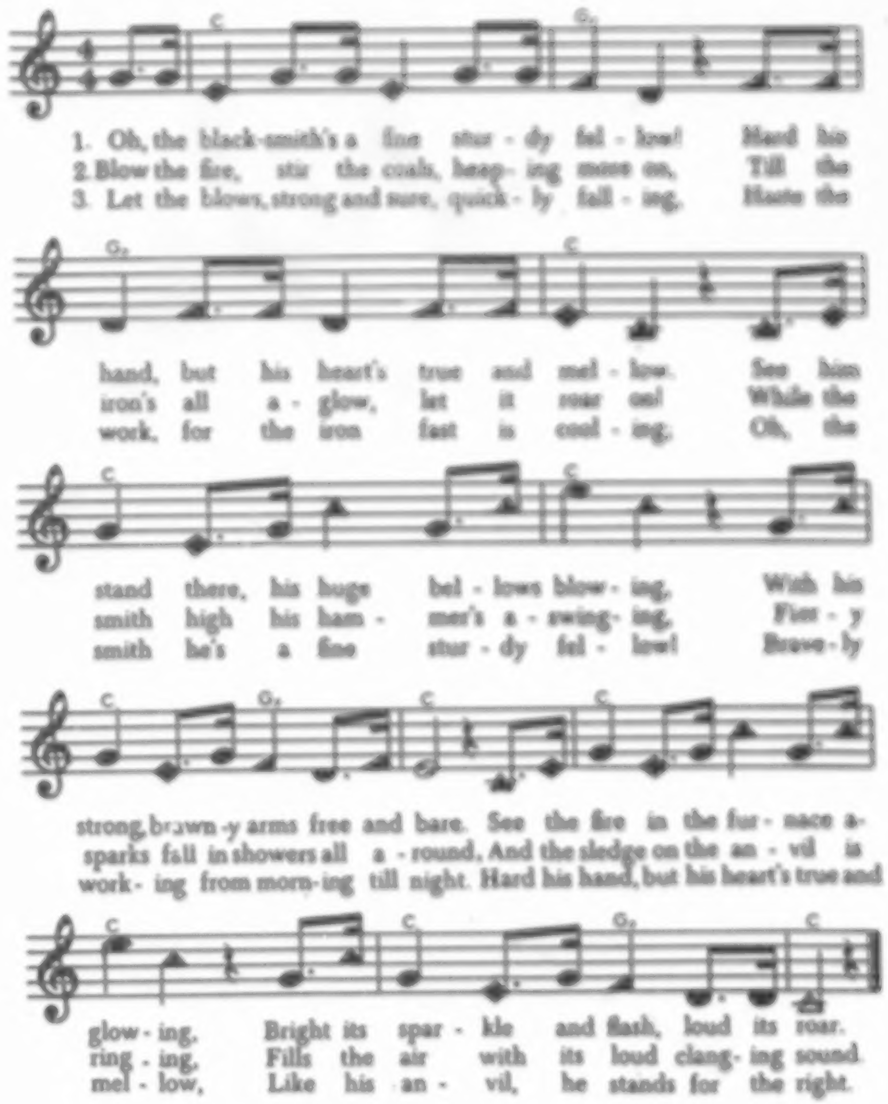
ST. PAUL'S STEEPLE

Lightly
Traditional


Bells play numbers
Up - on Paul's stee - ple stands a tree, As full of ap - ples
as can be. The lit - tle boys of Lon - don town, They
run with hooks to pull them down, And then they run from
hedge to hedge, Un - til they come to Lon - don Bridge.

The Blacksmith

MUSIC BY WOLFGANG AMADEUS MOZART


C
G7
1. Oh, the black-smith's a fine stur - dy fel - low! Hard his
2. Blow the fire, stir the coals, heap - ing more on, Till the
3. Let the blows, strong and sure, quick - ly fall - ing, Haste the
hand, but his heart's true and mel - low. See him
iron's all a - glow, let it roar on! While the
work, for the iron fast is cool - ing, Oh, the
stand there, his huge bel - lows blow - ing, With his
smith high his ham - mer's a - swing - ing, Fier - y
smith he's a fine stur - dy fel - low! Brave - ly
strong, brawn - y arms free and bare. See the fire in the fur - nace a-
sparks fall in showers all a - round, And the sledge on the an - vil is
work - ing from morn - ing till night. Hard his hand, but his heart's true and
glow - ing, Bright its spar - kle and flash, loud its roar.
ring - ing, Fills the air with its loud clang - ing sound.
mel - low, Like his an - vil, he stands for the right.

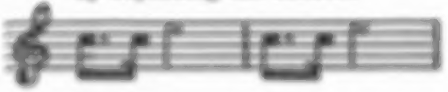
To hear what is happening in a musical composition, it is important to develop the ability to recognize musical motives. Young composers need to analyze such music to discover how the composer has used his material. The "Blacksmith" song serves as a good example of the introduction of a motive. Notice that the melody grows out of a three-note rhythmic fragment.

Another motive and another sequence is found in lines three and four. Sequences are ideal ways of developing music, but notice that two sequences are almost all that one should use. Three become "one too many." Try adding another sequence to the first line to see what monotony comes from overdoing a good thing.

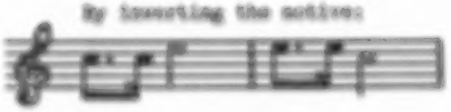
Motives are often called the building blocks of musical compositions. It is the motive that gives a piece of music its distinctive character. For example, tie the first two notes together and then sing the whole melody through without the rhythmic fragment being utilized.

The most common technique for continuing a motive is to repeat it. It may be repeated exactly, or in sequence, or in some other way that is recognizable. You may develop a motive in composition by using the following devices:

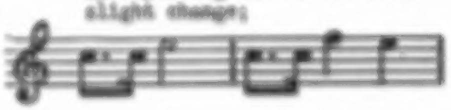
By repeating the motive:



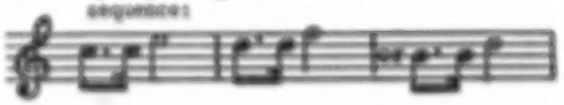
By inverting the motive:



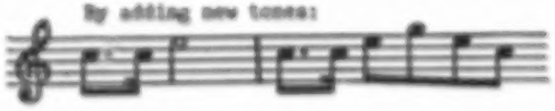
By repeating the motive with slight change:



By repeating the motive in sequence:



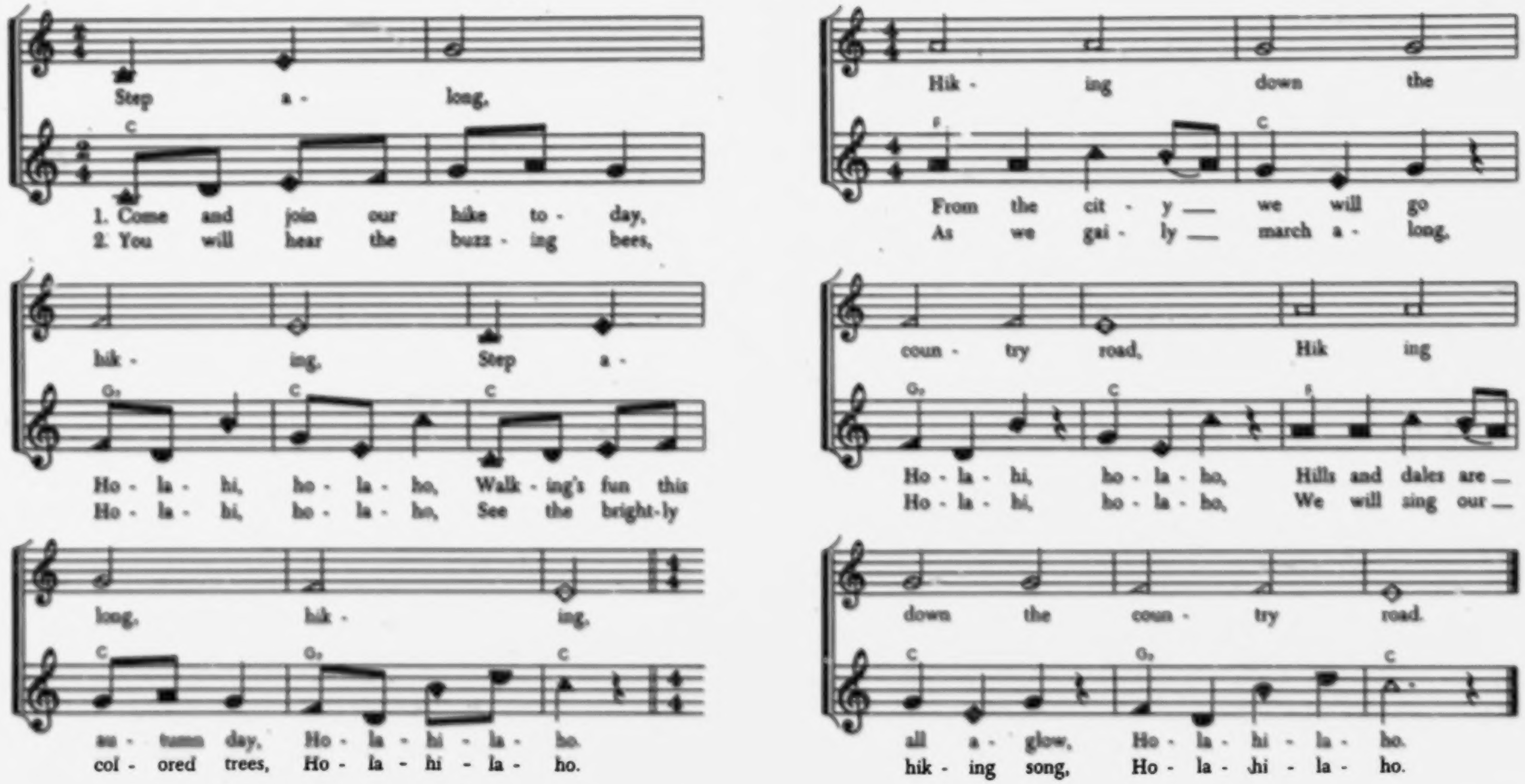
By adding new tones:



It has always been a common practice of composers to study the works of master composers and to attempt to refine their own sense of taste. In the songs on the following pages, each phrase may be divided in half and each half subdivided into smaller parts. This phrase structure is basic to the young composer and should be studied carefully.

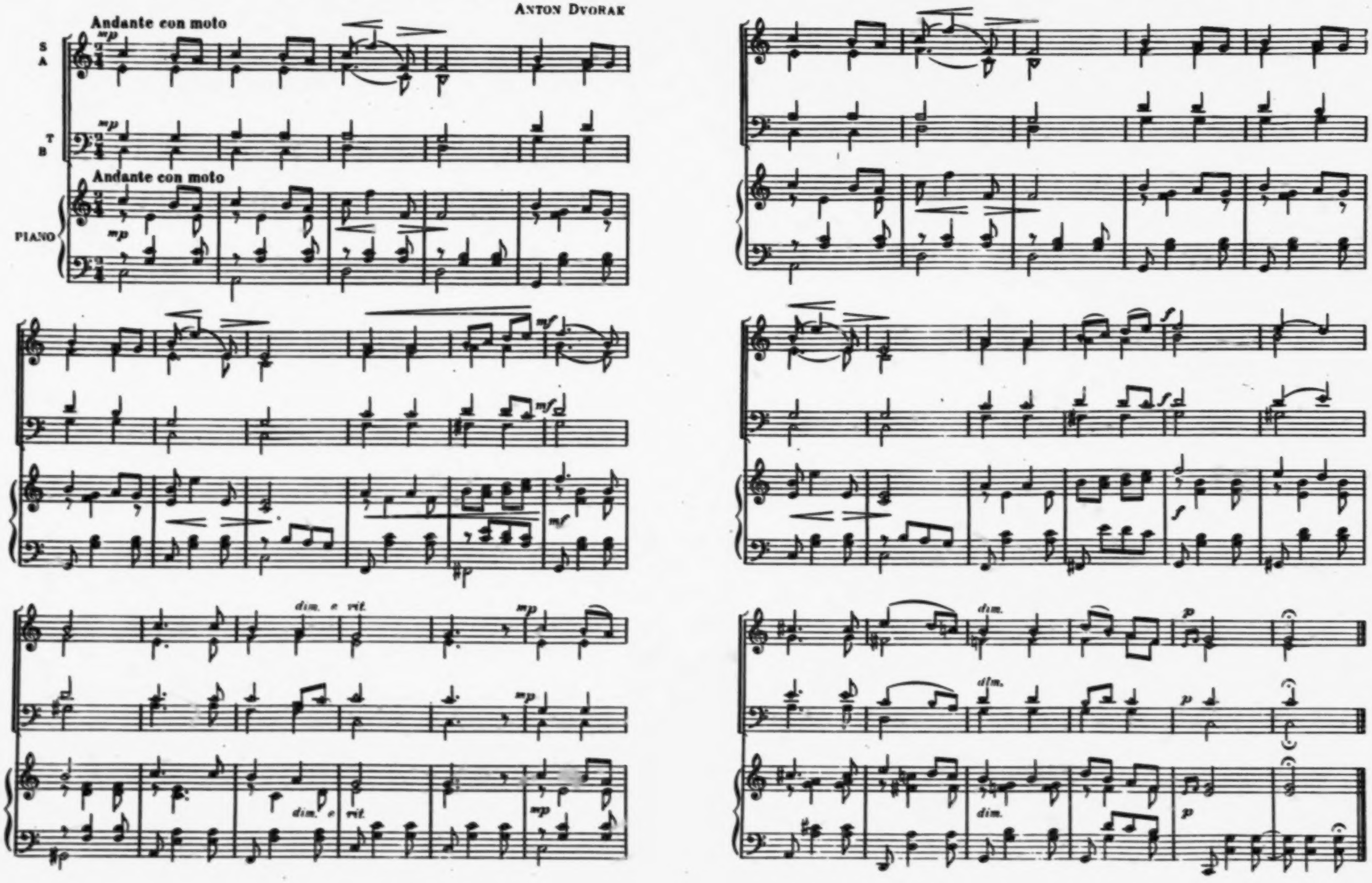
Hiking Song

GERMAN FOLK SONG


Step a - long,
C
1. Come and join our hike to - day,
2. You will hear the buzz - ing bees,
hik - ing, Step a -
G₇ C C
Ho - la - hi, ho - la - ho, Walk - ing's fun this
Ho - la - hi, ho - la - ho, See the bright-ly
long, hik - ing,
C G₇ C
au - tumn day, Ho - la - hi - la - ho.
col - ored trees, Ho - la - hi - la - ho.
Hik - ing down the
F C
From the cit - y — we will go
As we gai - ly — march a - long,
coun - try road, Hik ing
G₇ C F
Ho - la - hi, ho - la - ho, Hills and dales are —
Ho - la - hi, ho - la - ho, We will sing our —
down the coun - try road.
C G₇ C
all a - glow, Ho - la - hi - la - ho.
hik - ing song, Ho - la - hi - la - ho.

Songs My Mother Taught Me

Anton Dvorak



Every good melody has a purpose. It does not meander but moves with a definite step towards the main point of interest. It knows where it is going. In each phrase there should be one sound which stands out from the others, the peak of the phrase. If there are several phrases in the tune, the most important phrase has the chief climax. Usually there are three things which give prominence to a sound: (1) its accent, (2) its pitch, and (3) its duration. By following the melodic curve of the following tunes, one can see and hear that the whole of the phrase moves steadily toward the peak point and that the greatest emphasis belongs naturally to this climactic point. The climax point occurs in most tunes on an accented part of the measure. It stands out from the surrounding sounds also because of its height or pitch and its length or duration.

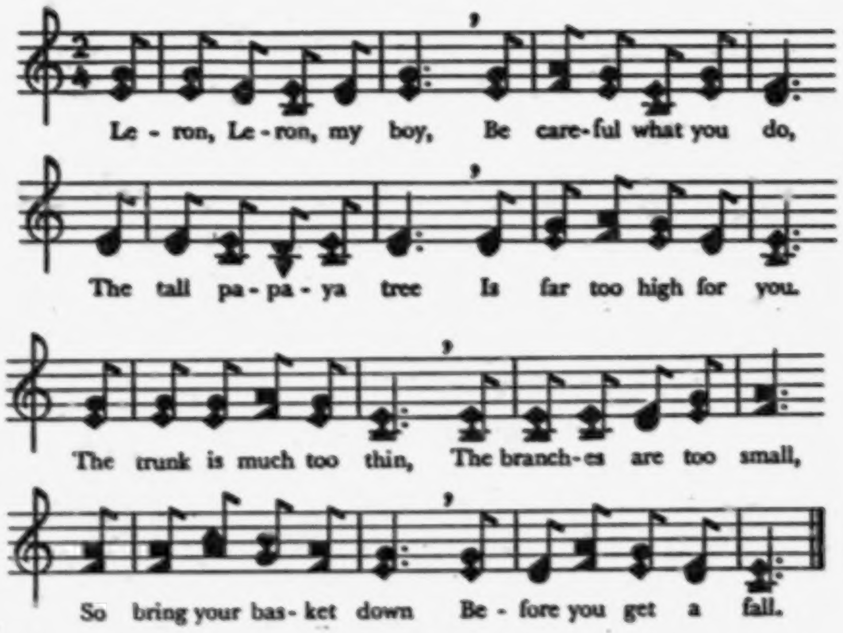
The climax usually comes somewhere between the mid-point and the final cadence in the latter part of the tune. In a good melody the curve tells how the music should be interpreted. Quite commonly the speed is built up to the peak point of each phrase, and especially to the climax, as the tone is built up. In some of the earliest of the tunes considered here, the second or consequent phrase was so much like the first or antecedent phrase that for many measures a ditto marking might have been used. Too much similarity in the second phrase may be avoided if the same sounds as in the first are used but with a slight variation or ornamentation.

What we have done has been to introduce the motive and complement idea. The motive was the two-measure phrase which was repeated. Then it was balanced by a four-measure complement. So far, our melodies have been primarily degree-wise movement. Now we need to look at some rules for skipping. For example: before you take a big skip, move in the direction opposite to it. This gives balance in anticipation for the large jump.

Another way to prepare for a large jump is to repeat a note so that while repeating it you feel the need to take a wide skip in the melodic line. Another experiment: try the question portion of your musical sentence in the high range then put the answer in the low range. This sounds almost like a woman, or a girl, and a boy in conversation.

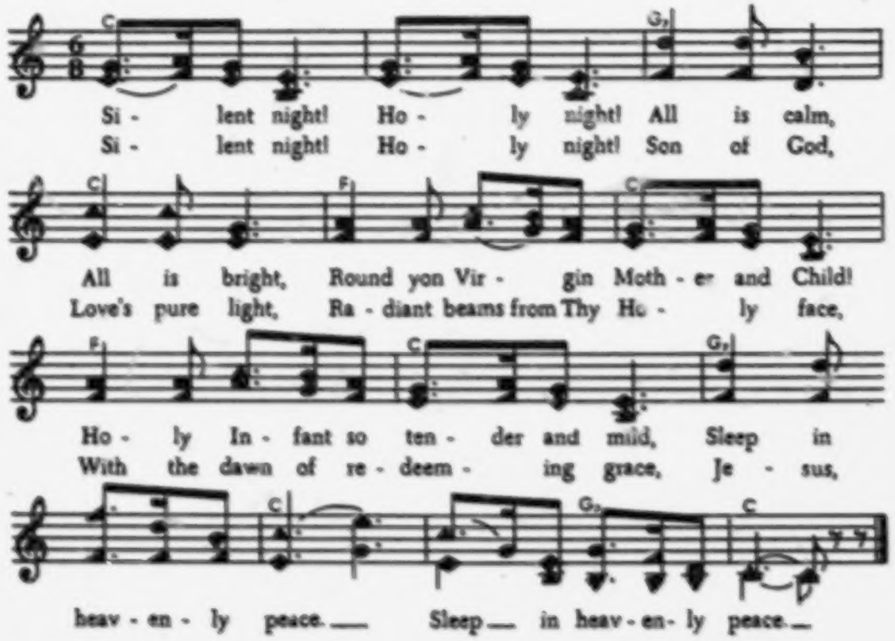
After a skip, the melodic line changes direction. Sometimes a melody skips in the opposite direction to counterbalance the first skip. Or more frequently it returns by a step to fill in the distance skipped over. Some skips, which are called active melodic tones, are commonly made from the same direction to its resolution tendency. Thus, ti, which tends to resolve upward, would be approached from above. A tone, such as fa, with a downward tendency should be approached from below. This permits the resolution tendency of the active tone, fa or ti, to agree with the tendency of the melody to change direction after a skip. If there are two or more skips in the same direction, this suggests that the notes are members of a chord, though, in some instances, they are not necessarily members of the same chord. A good melody writer will use very sparingly a melodic line which mixes skips and steps all moving in the same direction.

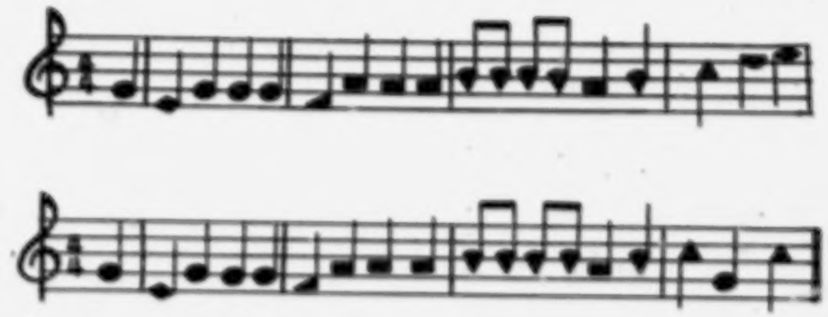
Leron, Leron


Le - ron, Le - ron, my boy, Be care-ful what you do,
The tall pa - pa - ya tree Is far too high for you.
The trunk is much too thin, The branch-es are too small,
So bring your bas - ket down Be - fore you get a fall.

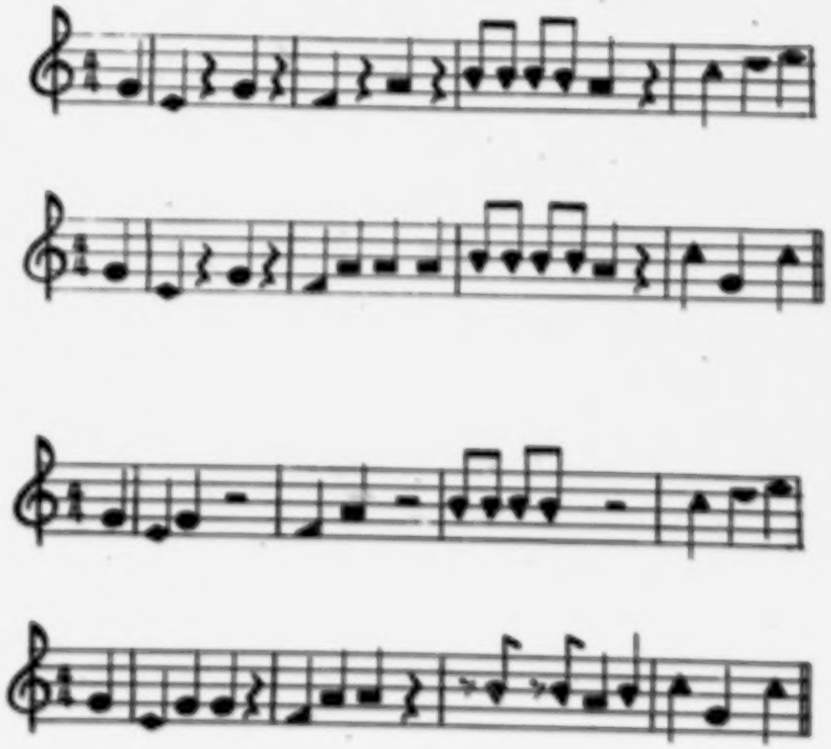
Silent Night

WORDS BY JOSEF MOHR
MUSIC BY FRANZ GRUBER

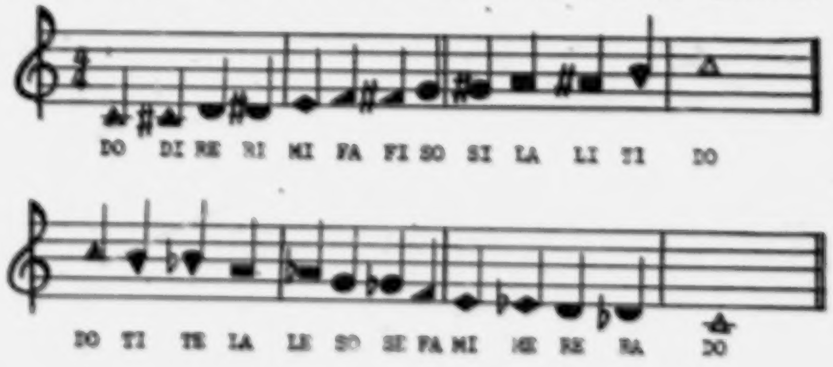

C
G7
Si - lent night! Ho - ly night! All is calm,
Si - lent night! Ho - ly night! Son of God,
C
F
C
All is bright, Round yon Vir - gin Moth - er and Child!
Love's pure light, Ra - diant beams from Thy Ho - ly face,
F
C
G7
Ho - ly In - fant so ten - der and mild, Sleep in
With the dawn of re - deem - ing grace, Je - sus,
C
G7
C
heav - en - ly peace. Sleep in heav - en - ly peace.



Just as melodic variation increases the interest of melodies, a good melody effect can also be made by varying the rhythms. In the pieces above the melodies are really using the same notes; but since they are in different rhythmic dress, they sound like different tunes. A change in the rhythm can make a great change in the character of a tune or the mood effect of a tune. In sustained tones, or long tones, the melody moves along smoothly in a somewhat stately manner, but when short repeated notes are used, the same sounds seem to skip or hop or jump along.

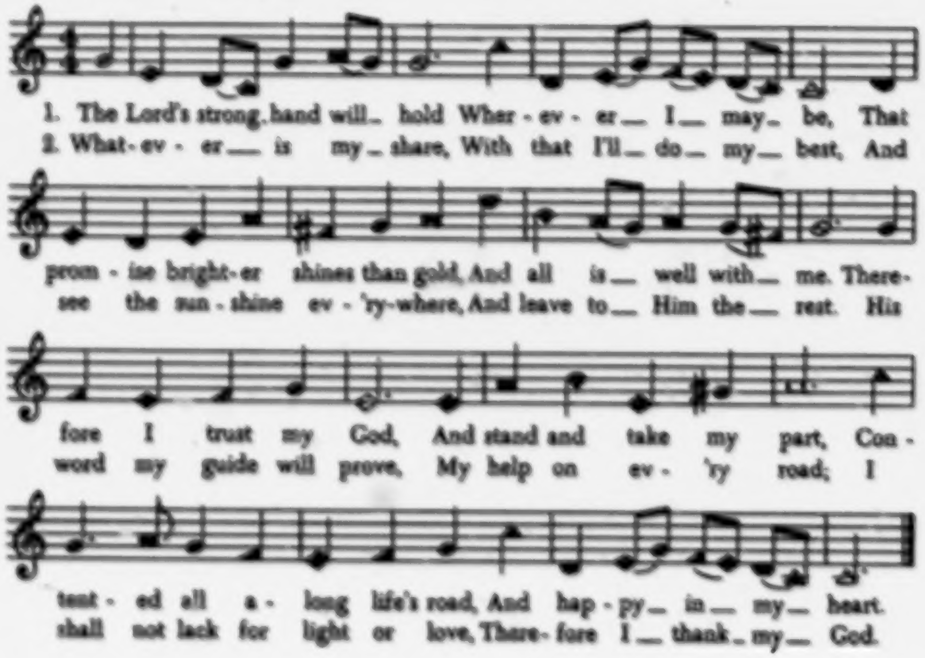


A scale dividing an octave into twelve equal parts is called a chromatic scale. In singing the sharped notes, change the vowel sound of the syllable to ē. The flats are changed to ĕ, except for ray flatted which is an exception and is called rah. Here are the chromatic syllables:


DO DI RE RI MI FA FI SO SI LA LI TI DO
DO TI TE LA LE SO SE FA MI ME RE RA DO

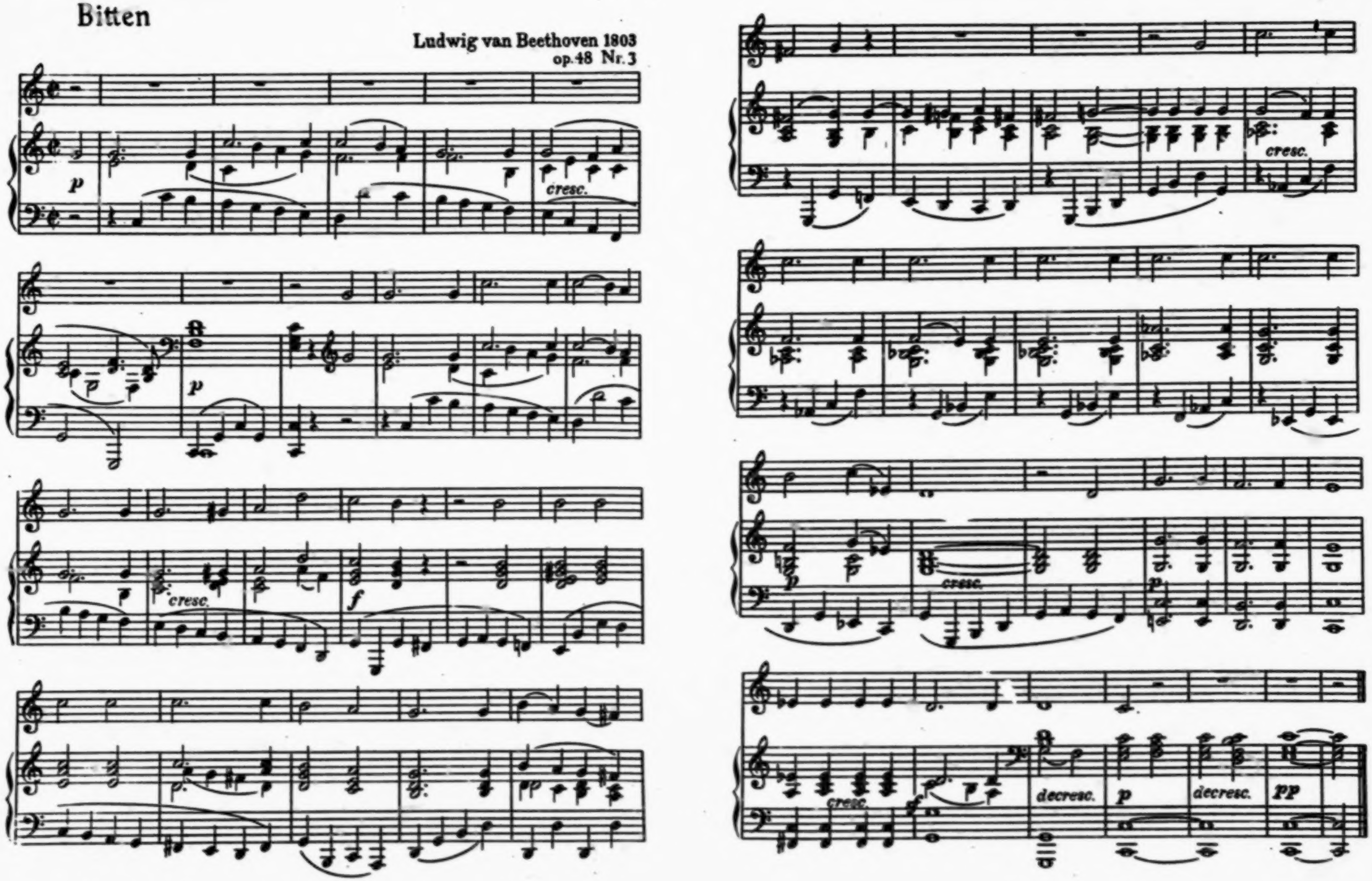
I Thank My God

MUSIC BY JOHANN SEBASTIAN BACH


1. The Lord's strong hand will hold Wher - ev - er I may be, That
2. What - ev - er is my share, With that I'll do my best, And
prom - ise bright - er shines than gold, And all is well with me. There-
see the sun - shine ev - 'ry - where, And leave to Him the rest. His
fore I trust my God, And stand and take my part, Con -
word my guide will prove, My help on ev - 'ry road; I
tent - ed all a - long life's road, And hap - py in my heart.
shall not lack for light or love, There - fore I thank my God.

Bitten

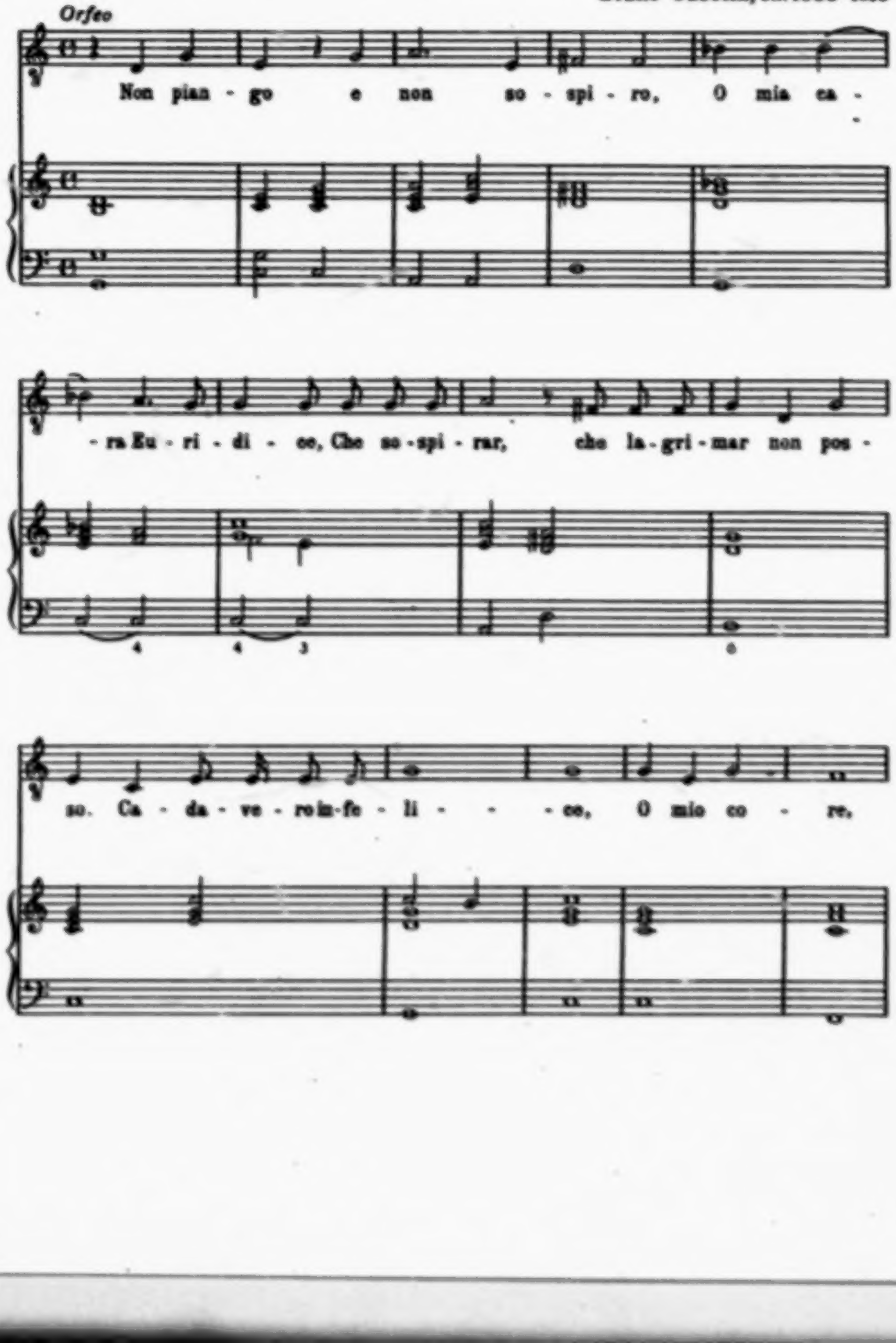
Ludwig van Beethoven 1803
op. 48 Nr. 3

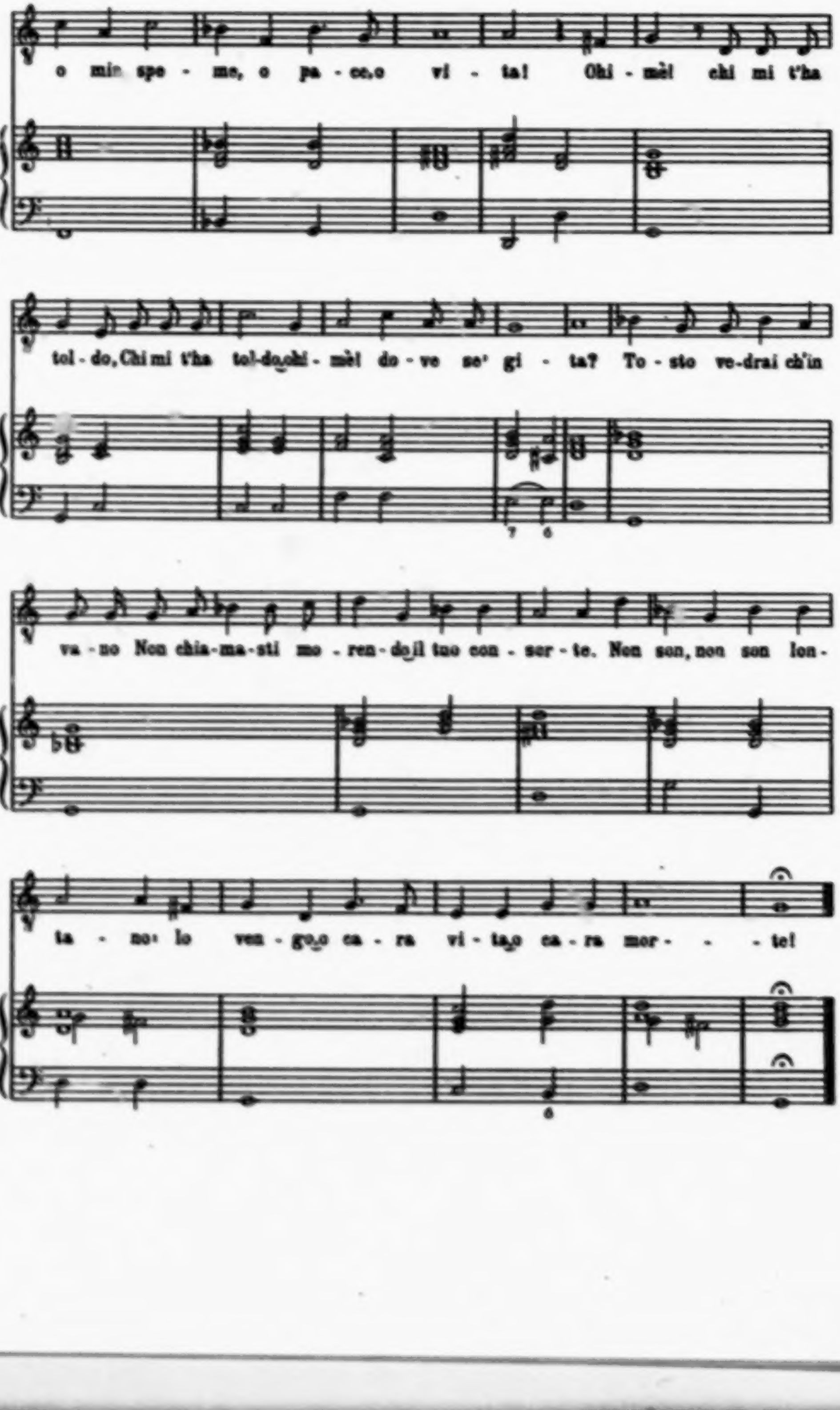


II. Die Oper

Oper Euridice (1600)

Giulio Caccini, ca. 1550-1618

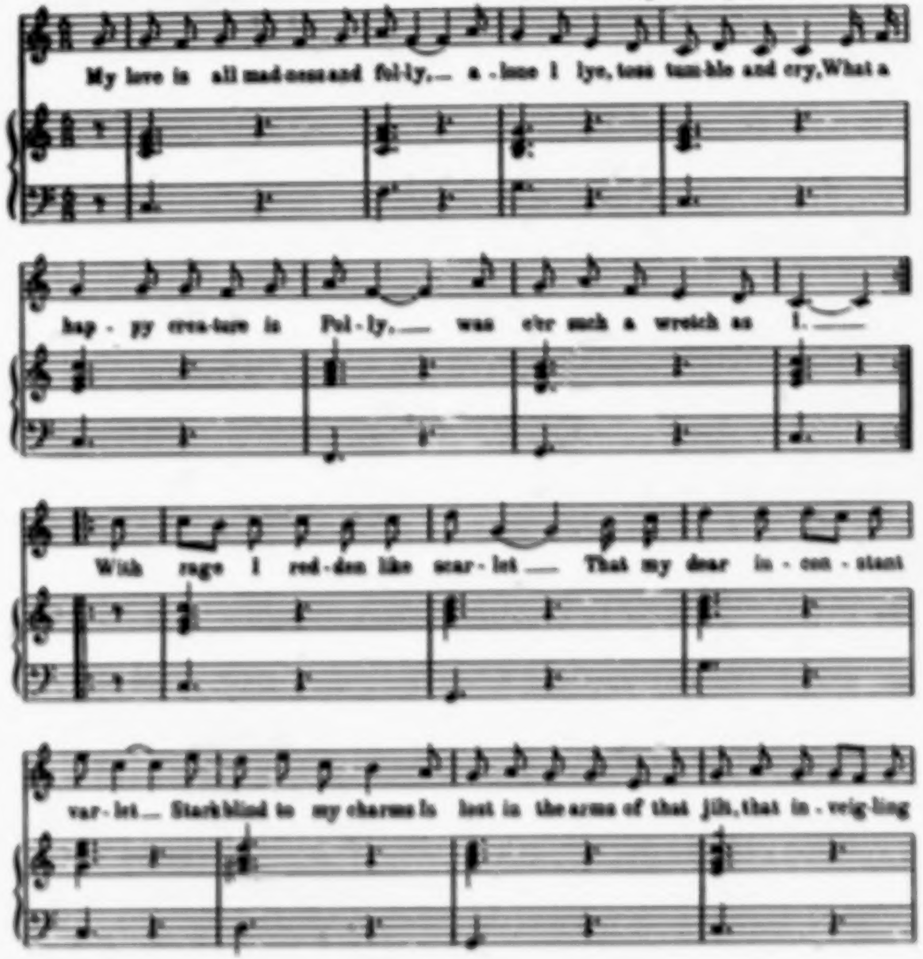

Orfeo
Non pian - go e non so - spi - ro, O mia ca -
- ra Eu - ri - di - ce, Che so - spi - rar, che la - gri - mar non pos -
so. Ca - da - ve - ro in - fe - li - - - ce, O mio co - - re,
4 4 3 6

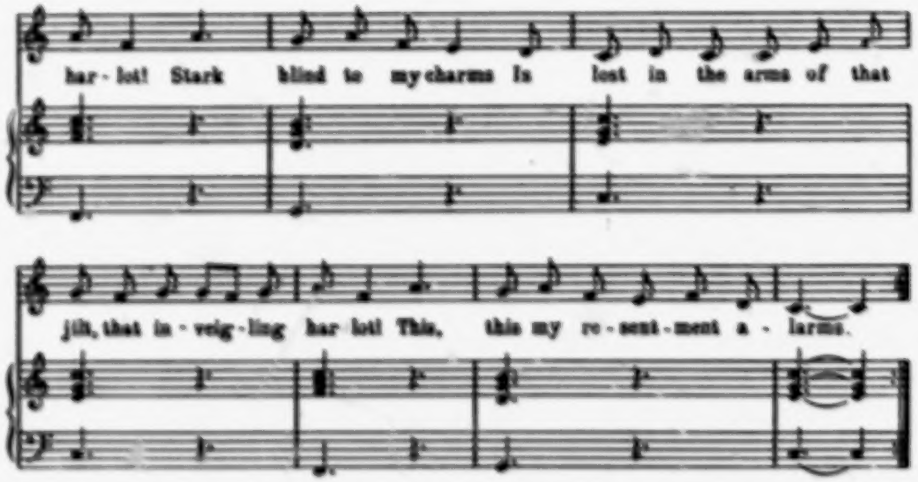

o mia spe - me, o pa - ce, o vi - ta! Ohi - mè! chi mi t'ha
tol - do, Chi mi t'ha tol - do, ohi - mè! do - ve se' gi - ta? To - sto ve - drai ch'in
va - no Non chia - ma - sti mo - ren - do il tuo con - sor - te. Non son, non son lon -
ta - no: Io ven - go, o ca - ra vi - ta, o ca - ra mor - - - te!
7 6 6

The Beggar's Opera

My love is all madness

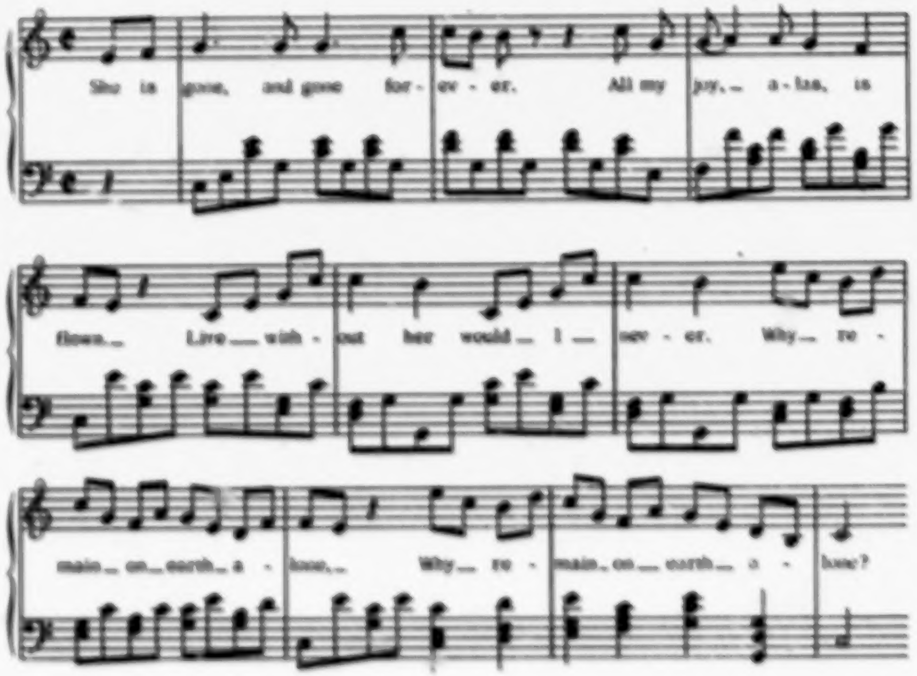
John Christopher Pepusch, 1667 - 1752


My love is all madness and fol-ly, a-lone I lye, toss tum-ble and cry, What a
hap-py crea-ture is Pol-ly, was e'er such a wretch as I.
With rage I red-den like scar-let That my dear in-con-stant
var-let Stark blind to my charms Is lost in the arms of that jilt, that in-veig-ling


har-lot! Stark blind to my charms Is lost in the arms of that
jilt, that in-veig-ling har-lot! This, this my re-sent-ment a-larms.

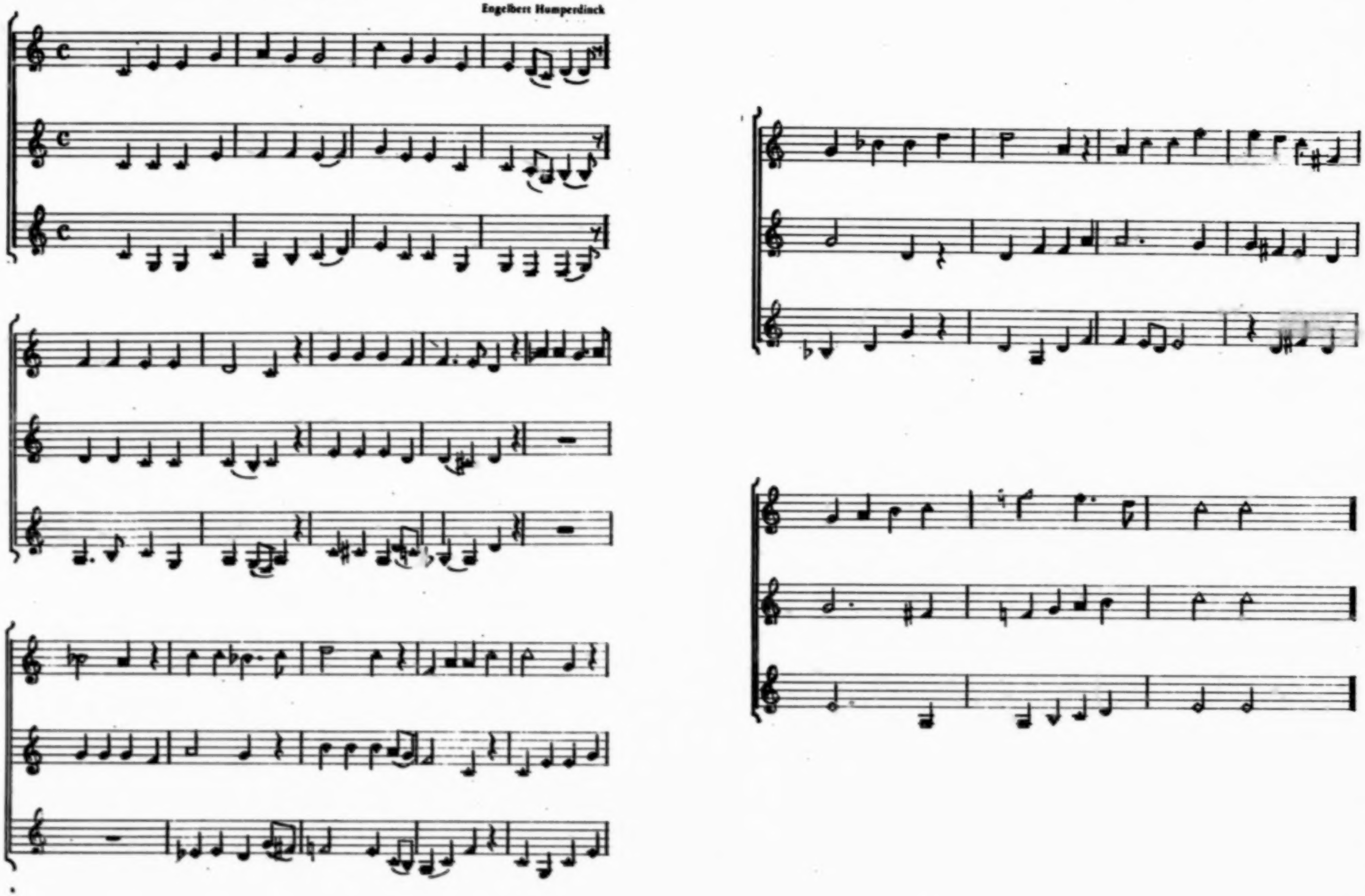
She Is Gone and Gone Forever from "Orpheus"

Christoph Willibald Gluck

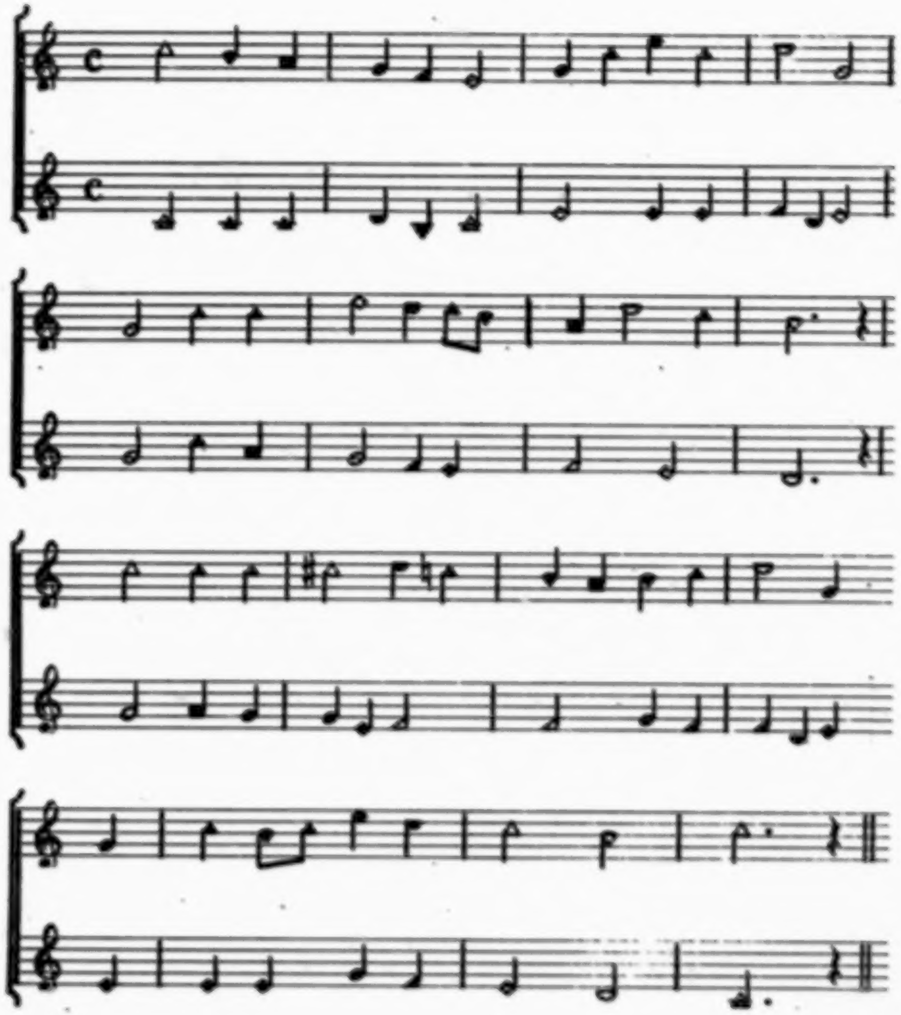

She is gone, and gone for-ev-er. All my joy, a-las, is
flown. Live with-out her would I nev-er. Why re-
main on earth a-lone, Why re-main on earth a-lone?

CHILDREN'S PRAYER

Engelbert Humperdinck



FAIREST LORD JESUS

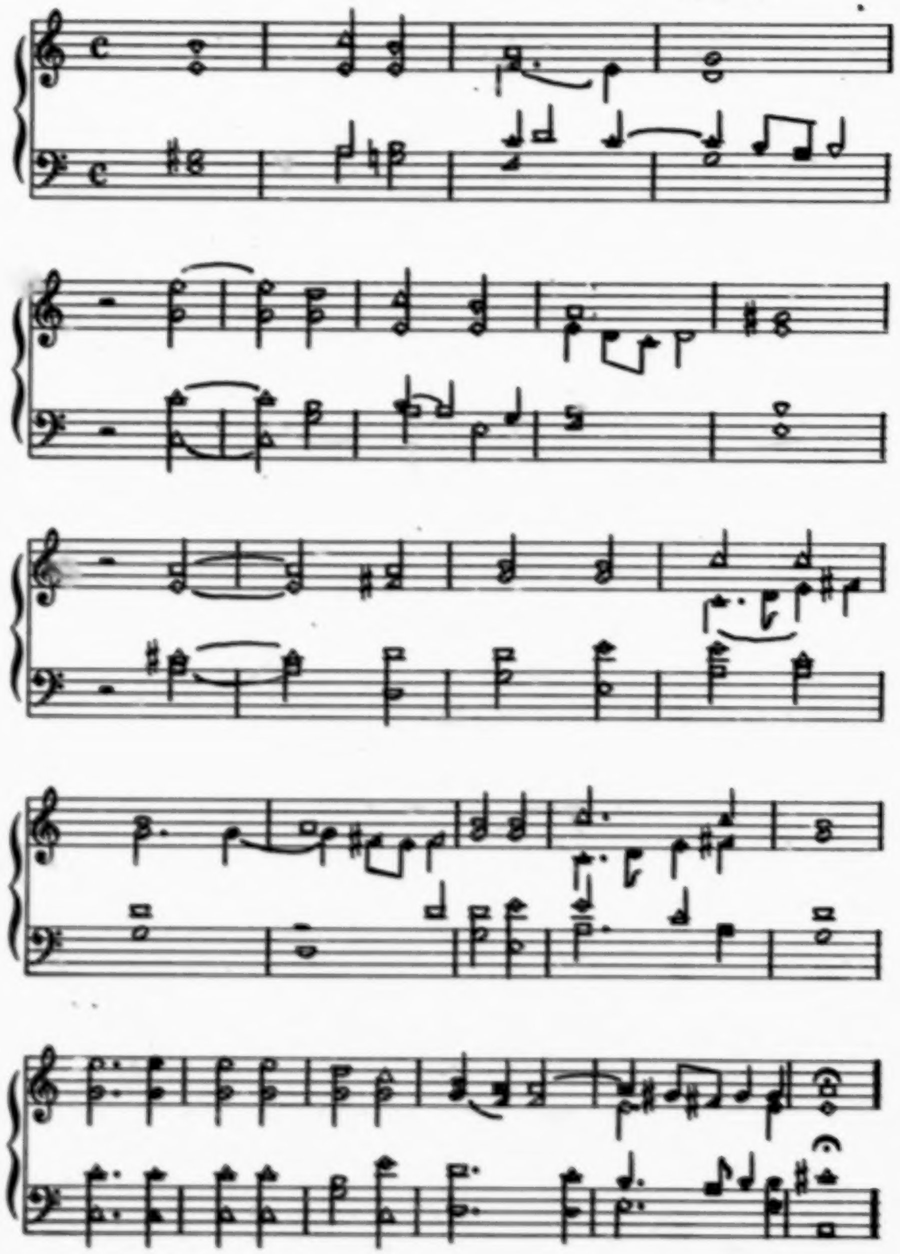


O Holy Jesu

(O bone Jesu)

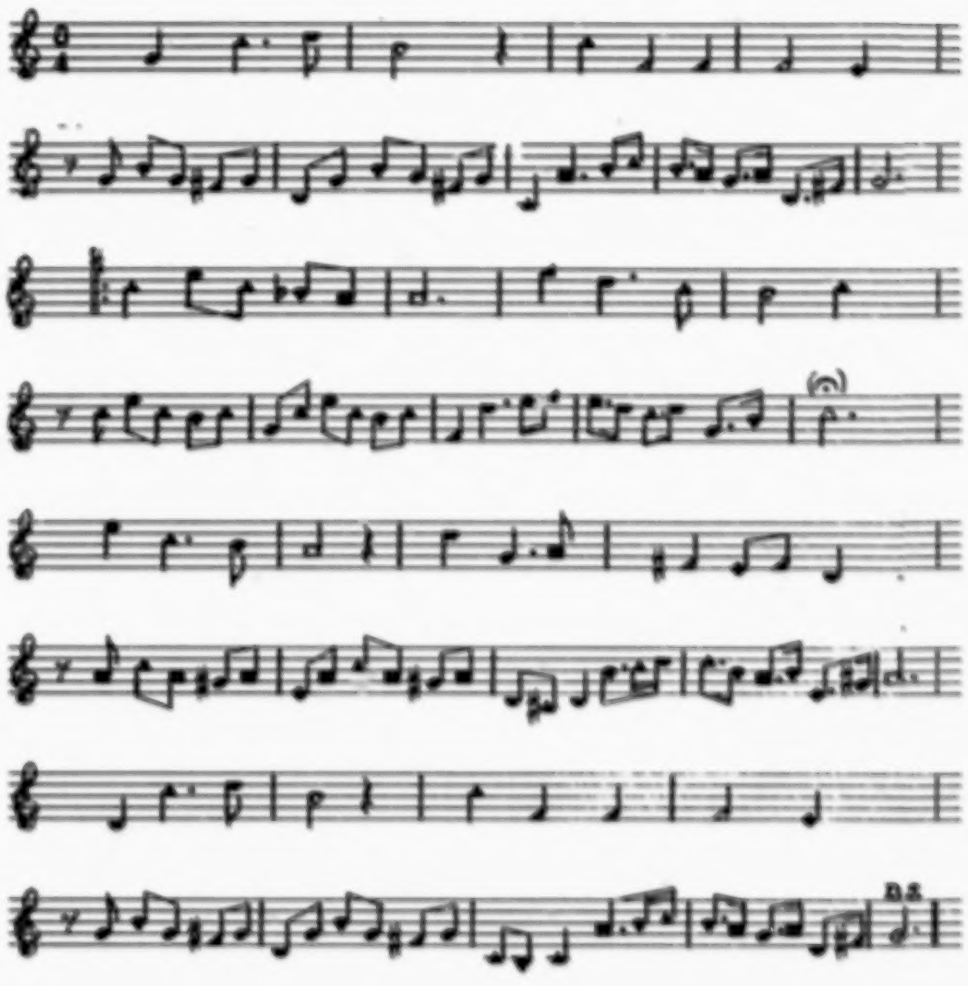
(a cappella)

Giovanni Pierluigi da Palestrina
(1526-1594)



BIST DU BEI MIR

Bach



A major scale sounds the way it does because of its arrangement of half steps and whole steps. The major scale is comprised of two Ionian tetrachords (Greek four-toned scales) which have as their arrangement:

▲ full step ◒ full step ◆ half step ◢

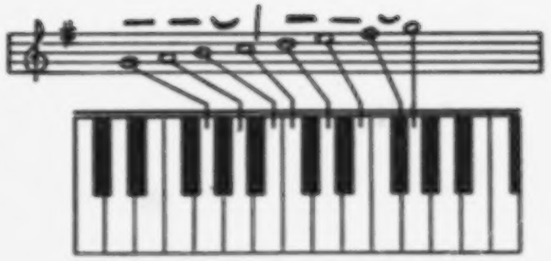
Of course, there is a full step between the two identical tetrachords.

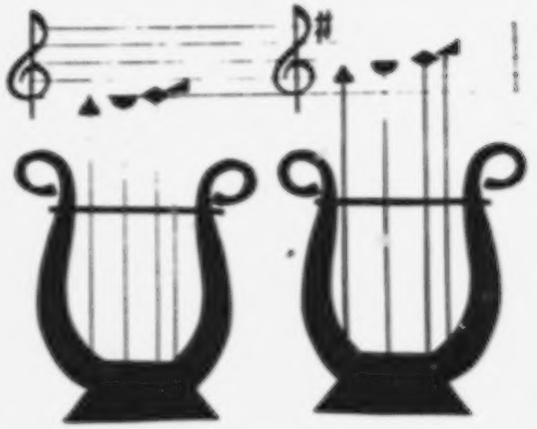
To make a new scale merely retain one of the two tetrachords and add another of the same pattern either below or above it. If you make use of the upper tetrachord--calling so, do, in the new key--you will need to use a sharp on the next to the last note to create the necessary half step between the seventh and eighth tones. The purpose of the sharp, therefore, is to create a ti for the new key. Do, the key tone, is always one-half step higher than the last sharp used in the key signature.

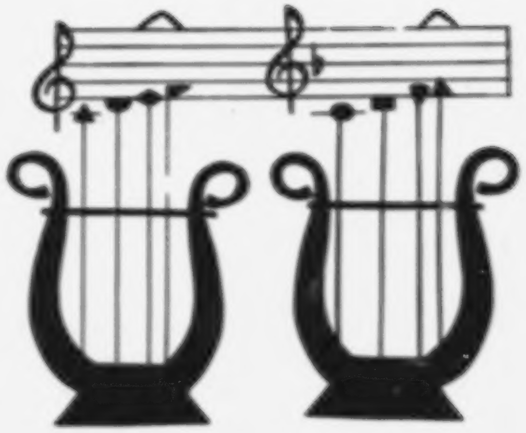
If you use the first of the two tetrachords and add to it an identical tetrachord pattern below it, you make, in effect, the mi-fa relationship become the ti-do relationship in a new key.

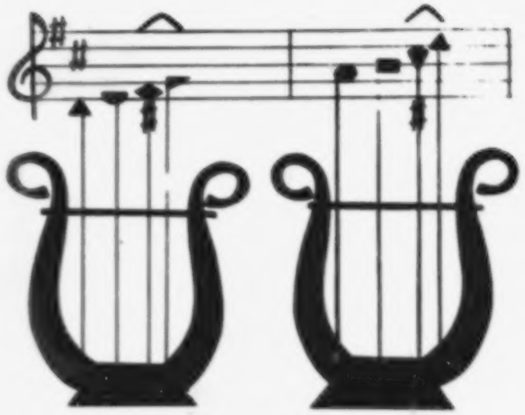
It is necessary here to add a flat on the fourth note of this new scale to create the half step relationship between mi and fa for the new scale. The purpose of the flat in the key signature, then, is to create the half step--between mi and fa. The flatted tone is fa, therefore the key tone may be computed by counting down four tones to the new do.

On the following pages are songs in the keys of G and F. Similarly, you will transfer normally written music to shaped notes that you may know without confusion which line or space is called do or so. Songs should be transcribed to the bass clef also, and both girls and boys should take turns singing in this clef, with the actual sound being adjusted to the range of the singers.



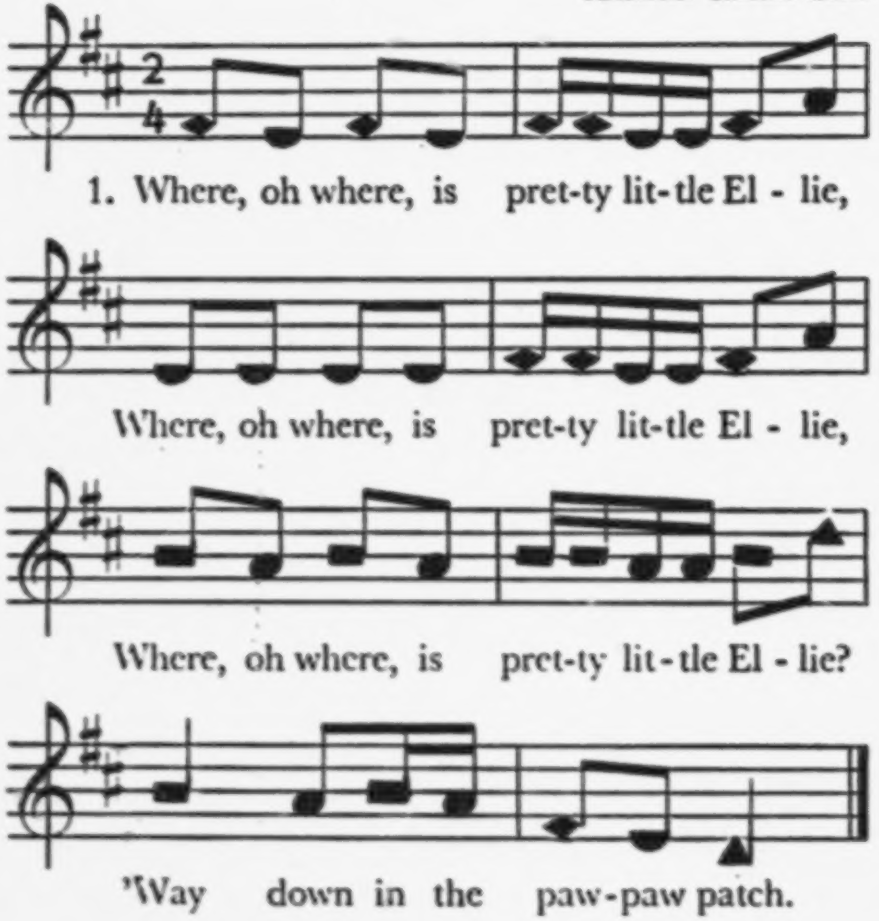






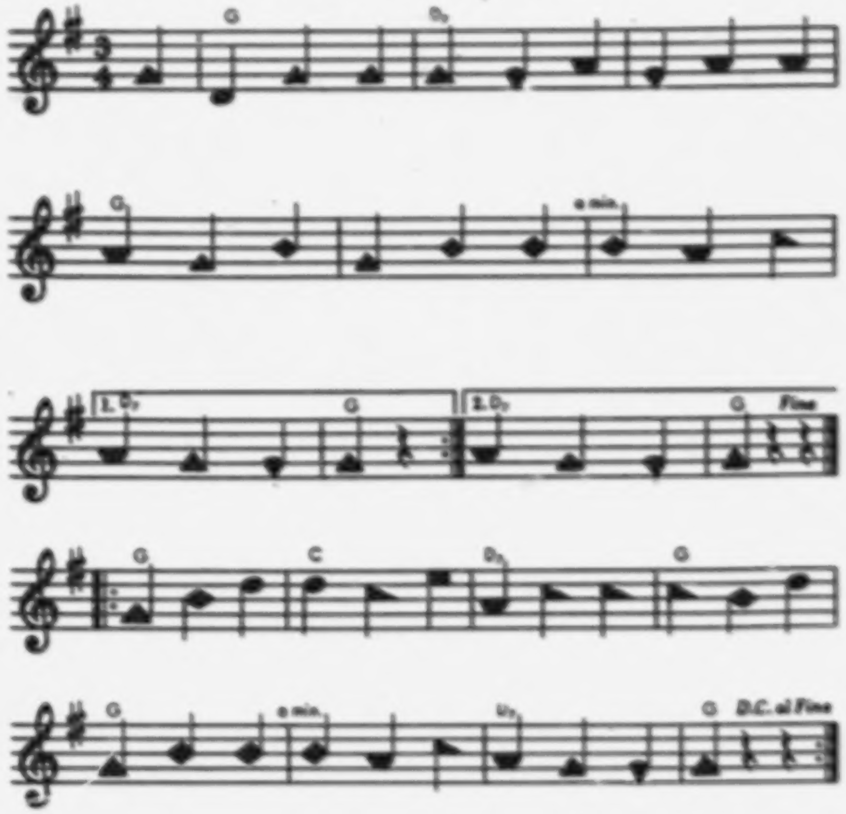
Pawpaw Patch

American Singing Game


1. Where, oh where, is pret-ty lit-tle El - lie,
Where, oh where, is pret-ty lit-tle El - lie,
Where, oh where, is pret-ty lit-tle El - lie?
'Way down in the paw-paw patch.

Folk Melody from Norway

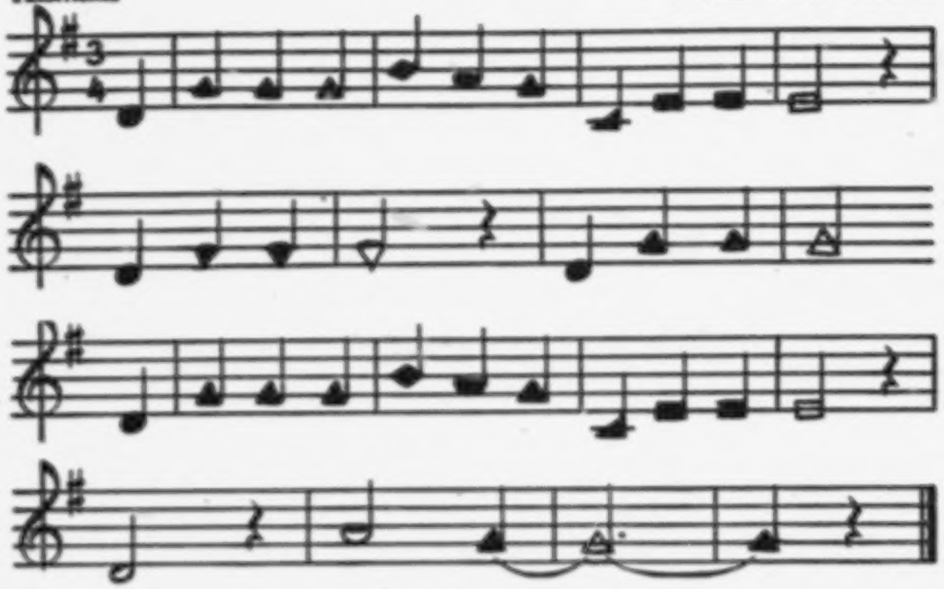
Norwegian Dance



Old Grumbler

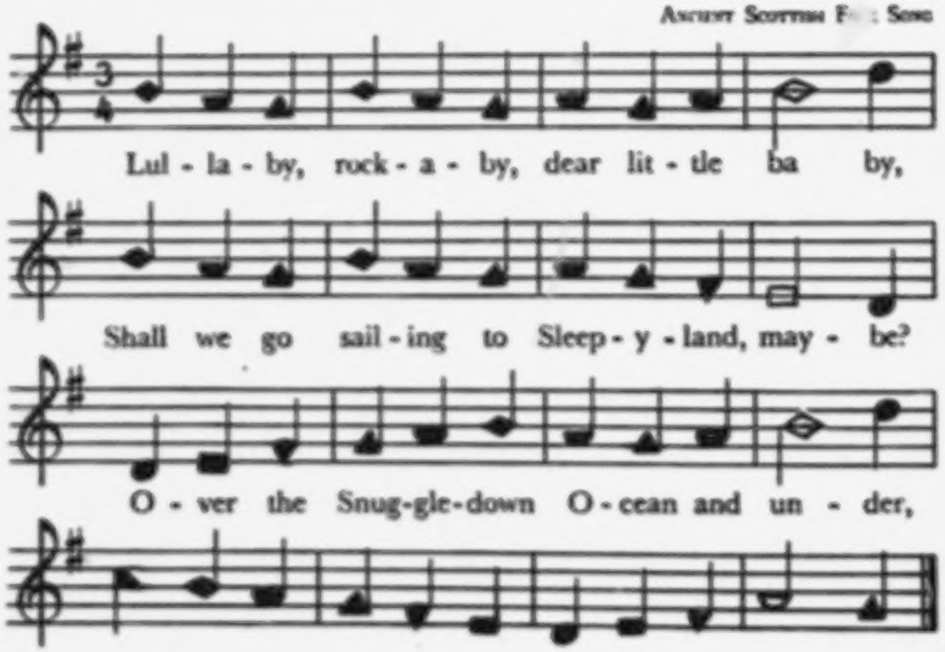
Traditional

Old American Singing Game



Old Lochaber Lullaby

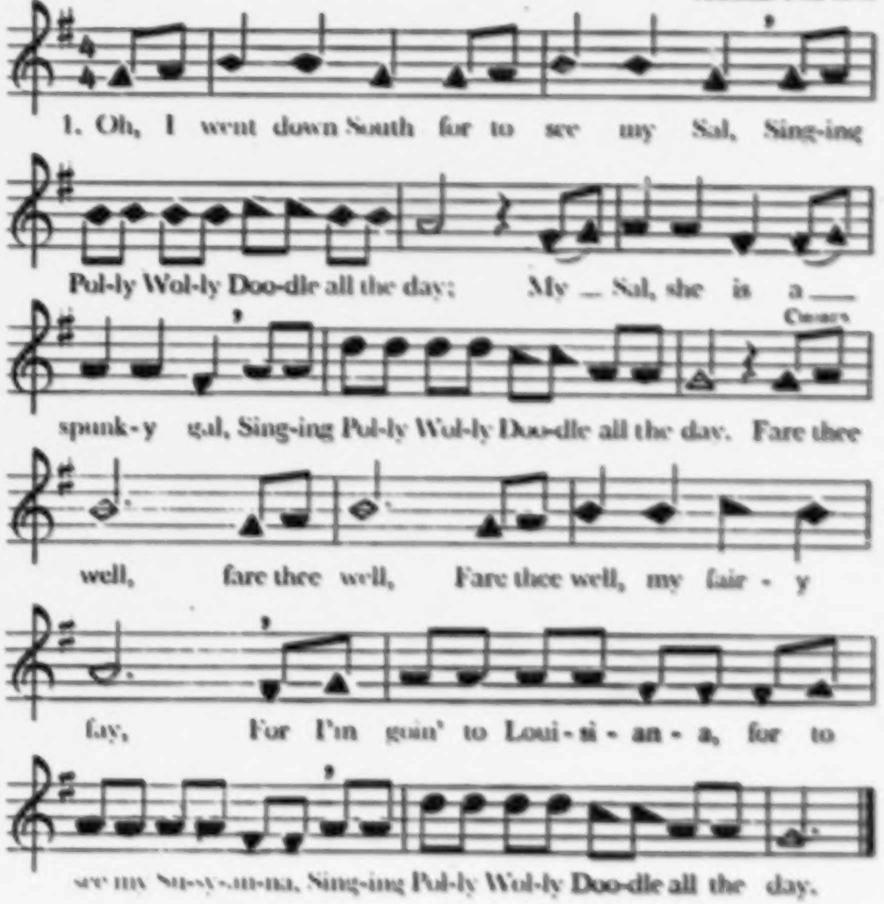
Ancient Scottish F[illegible] Song


Lul - la - by, rock - a - by, dear lit - tle ba by,
Shall we go sail - ing to Sleep - y - land, may - be?
O - ver the Snug-gle-down O - cean and un - der,

Polly Wolly Doodle

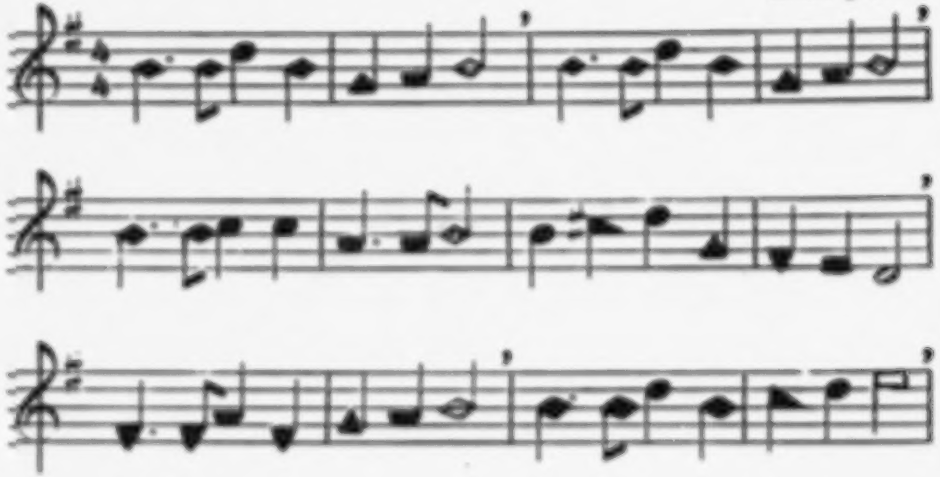
Traditional

American Folk Song


1. Oh, I went down South for to see my Sal, Sing-ing
Pol-ly Wol-ly Doo-dle all the day; My _ Sal, she is a ___
Chorus
spunk-y gal, Sing-ing Pol-ly Wol-ly Doo-dle all the day. Fare thee
well, fare thee well, Fare thee well, my fair - y
fay, For I'm goin' to Loui - si - an - a, for to
see my Su-sy-an-na, Sing-ing Pol-ly Wol-ly Doo-dle all the day.

Come, Ye Thankful People, Come

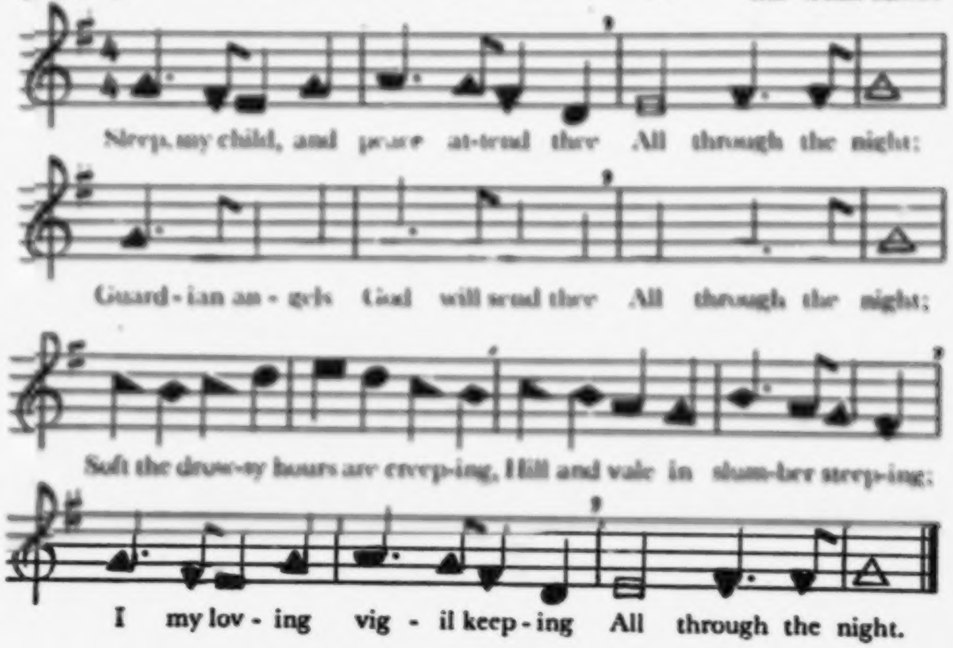
George J. Elvey



All through the Night

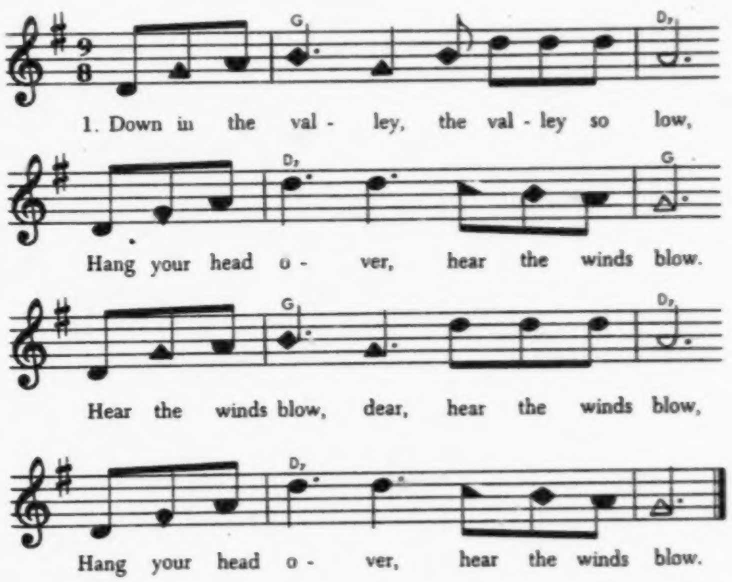
Traditional

Old Welsh Melody


Sleep, my child, and peace at-tend thee All through the night;
Guard - ian an - gels God will send thee All through the night;
Soft the drow-sy hours are creep-ing, Hill and vale in slum-ber steep-ing;
I my lov - ing vig - il keep - ing All through the night.

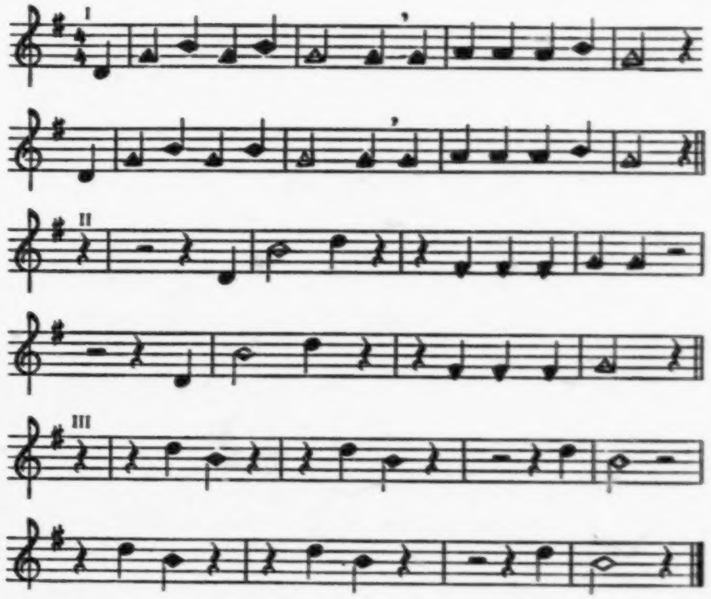
Down in the Valley

KENTUCKY FOLK SONG


G
D7
1. Down in the val - ley, the val - ley so low,
D7
G
Hang your head o - ver, hear the winds blow.
G
D7
Hear the winds blow, dear, hear the winds blow,
D7
Hang your head o - ver, hear the winds blow.

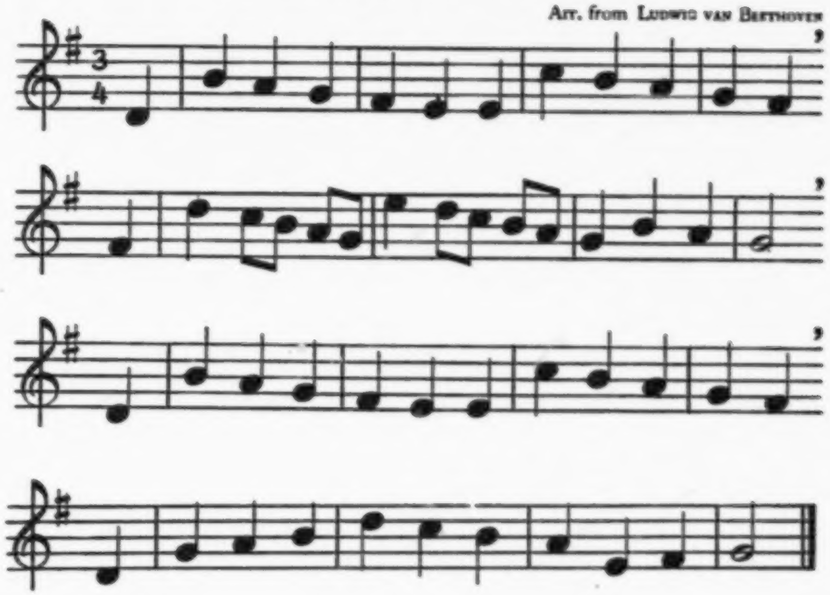
The Cuckoo Sounds His Call

OLD GERMAN CATCH



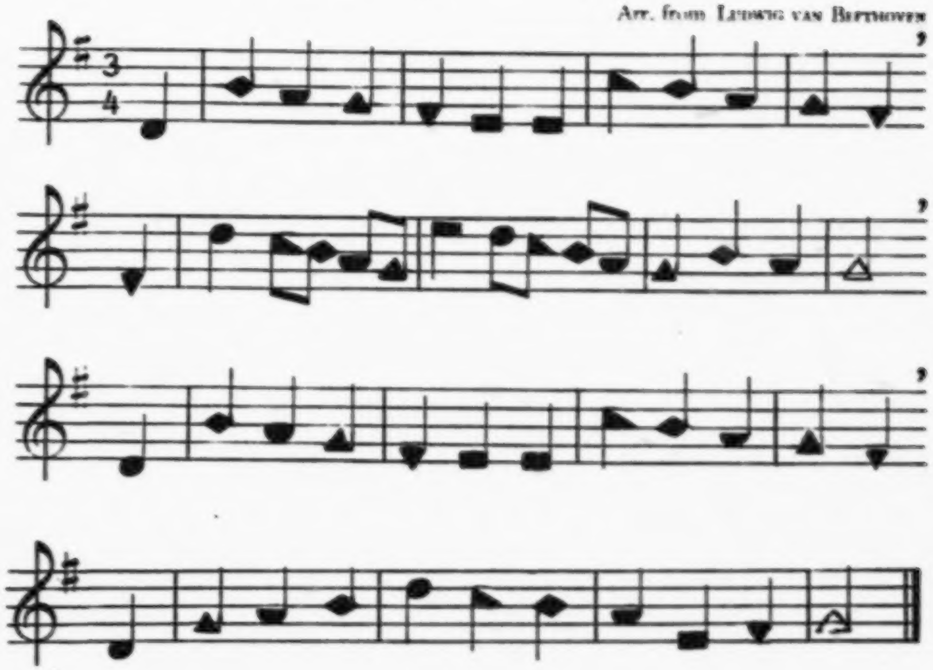
The Song of the Lark

ARR. FROM LUDWIG VAN BEETHOVEN

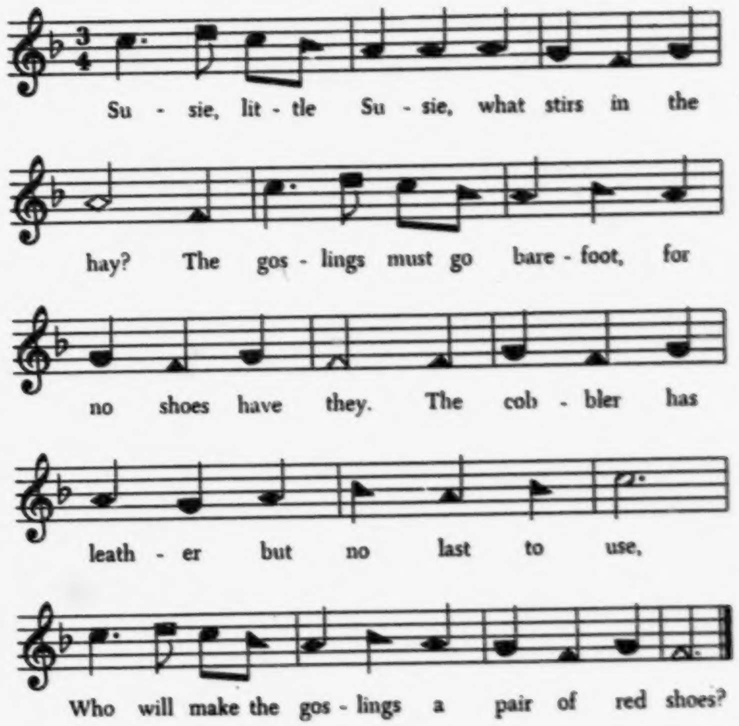


The Song of the Lark

ARR. FROM LUDWIG VAN BEETHOVEN

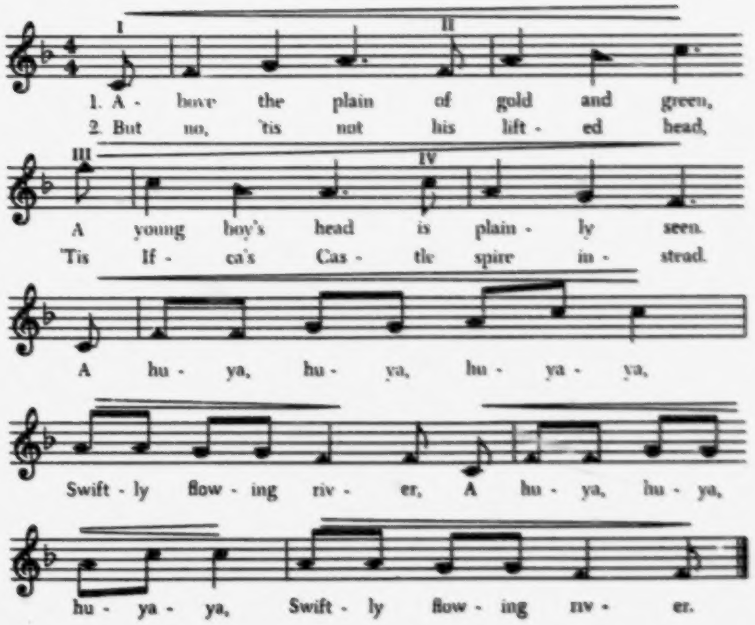


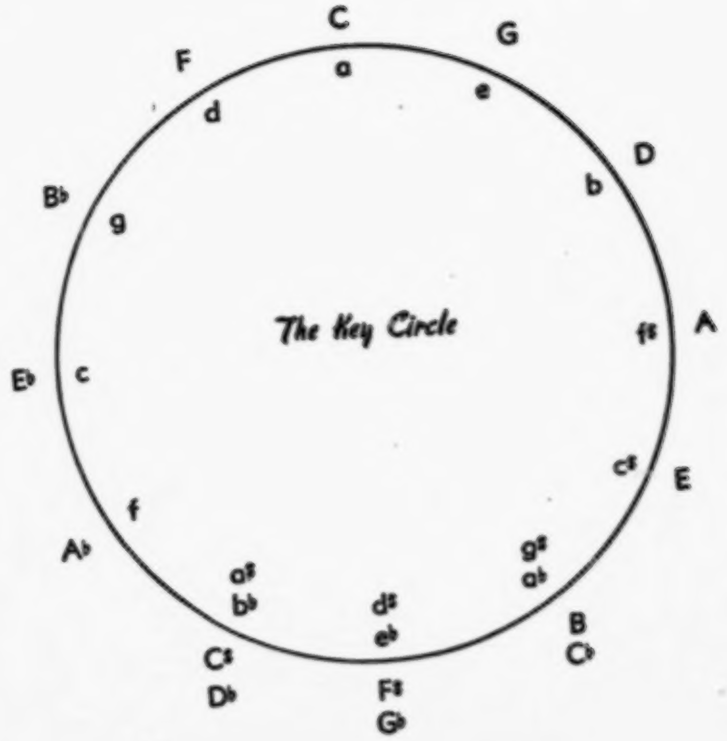
Susie, Little Susie

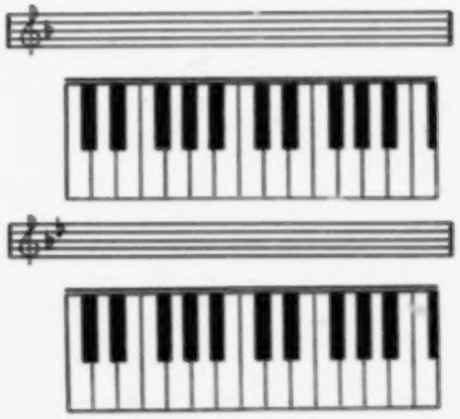

Su - sie, lit - tle Su - sie, what stirs in the
hay? The gos - lings must go bare - foot, for
no shoes have they. The cob - bler has
leath - er but no last to use,
Who will make the gos - lings a pair of red shoes?

Above the Plain

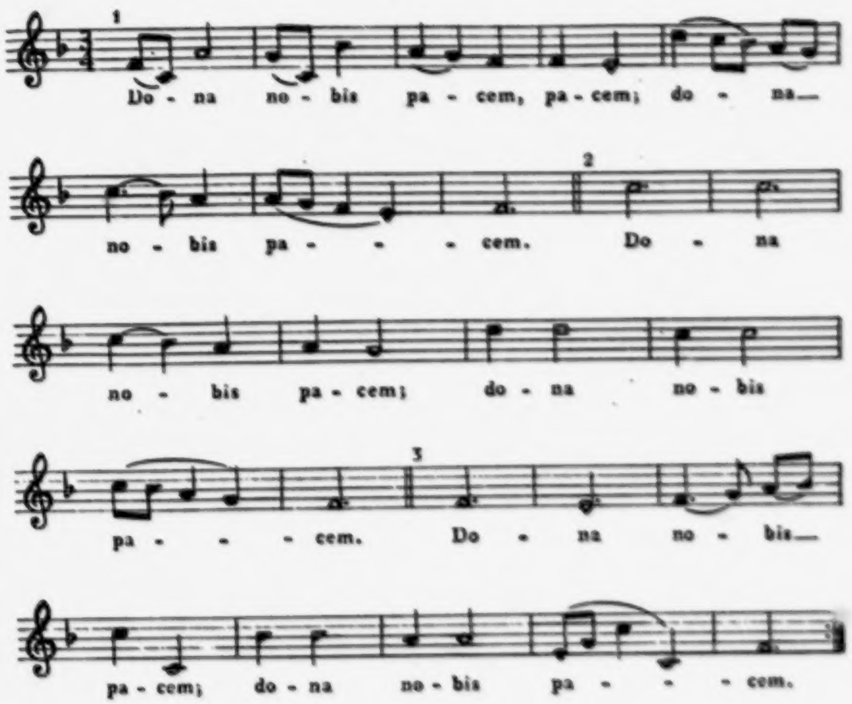
ROUND FROM CZECHOSLOVAKIA


I
II
III
IV
1. A - bove the plain of gold and green,
2. But no, 'tis not his lift - ed head,
A young boy's head is plain - ly seen.
'Tis If - ca's Cas - tle spire in - stead.
A hu - ya, hu - ya, hu - ya - ya,
Swift - ly flow - ing riv - er, A hu - ya, hu - ya,
hu - ya - ya, Swift - ly flow - ing riv - er.



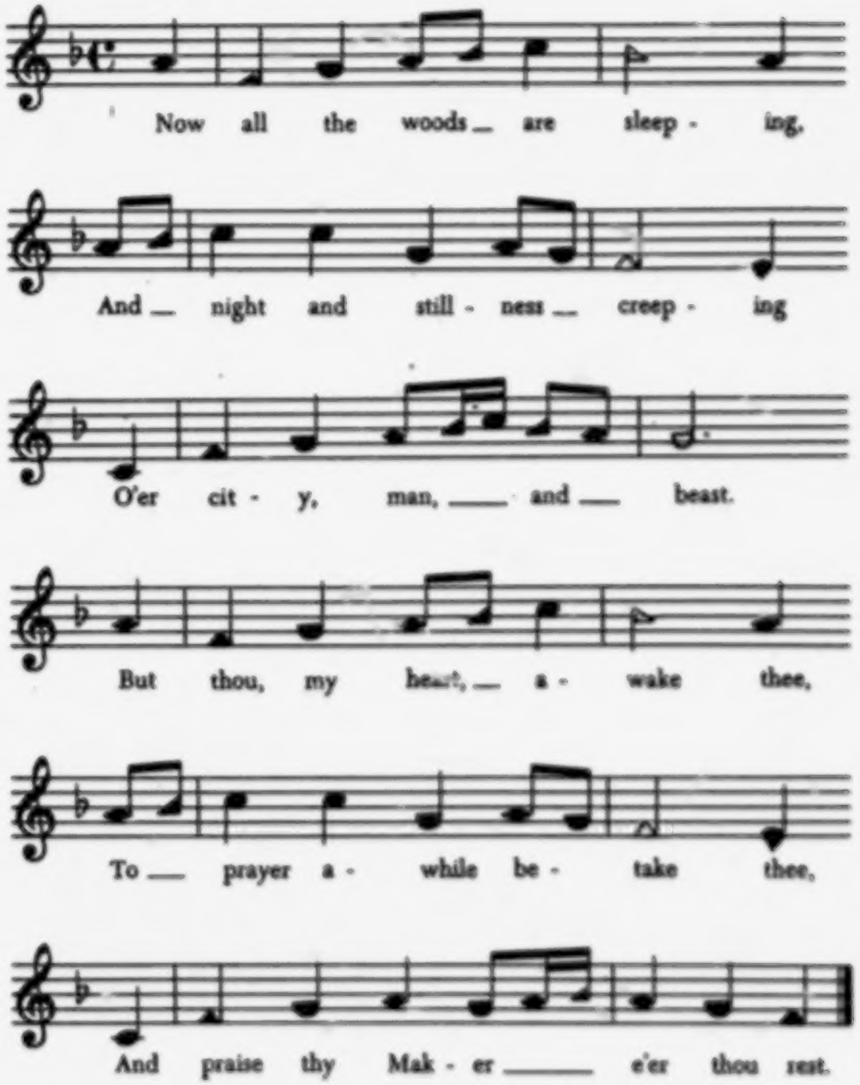


Dona Nobis Pacem


1
Do - na no - bis pa - cem, pa - cem; do - na
no - bis pa - - - cem.
2
Do - na
no - bis pa - cem; do - na no - bis
pa - - - cem.
3
Do - na no - bis
pa - cem; do - na no - bis pa - - - cem.

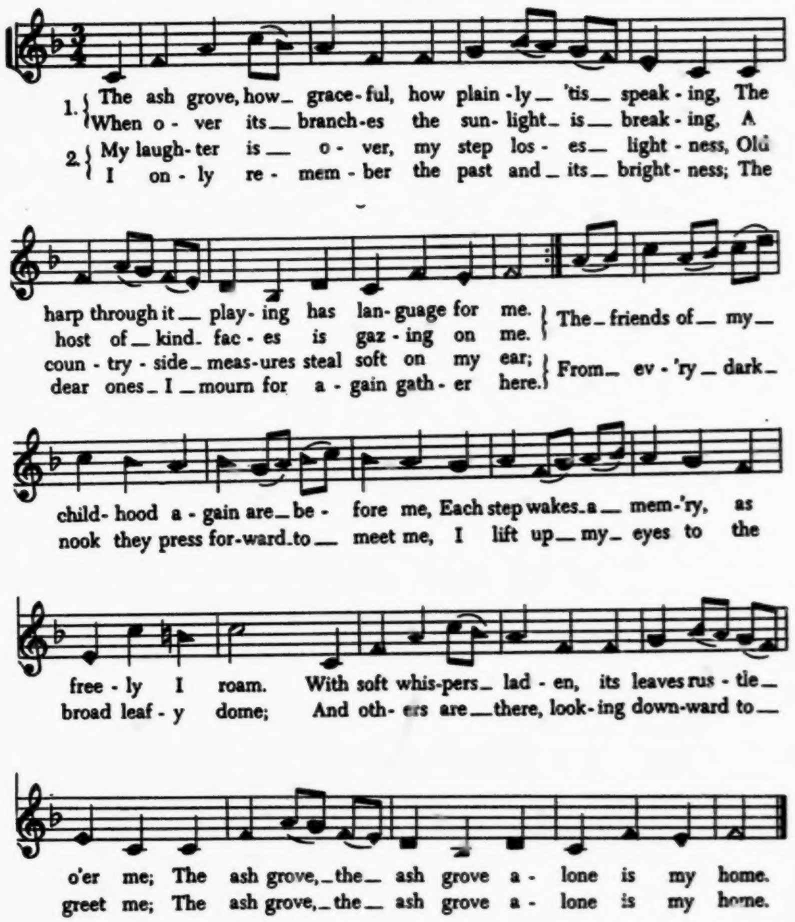
Now All the Woods Are Sleeping

CHORALE BY JOHANN SEBASTIAN BACH


Now all the woods are sleep - ing,
And night and still - ness creep - ing
O'er cit - y, man, and beast.
But thou, my heart, a - wake thee,
To prayer a - while be - take thee,
And praise thy Mak - er e'er thou rest.

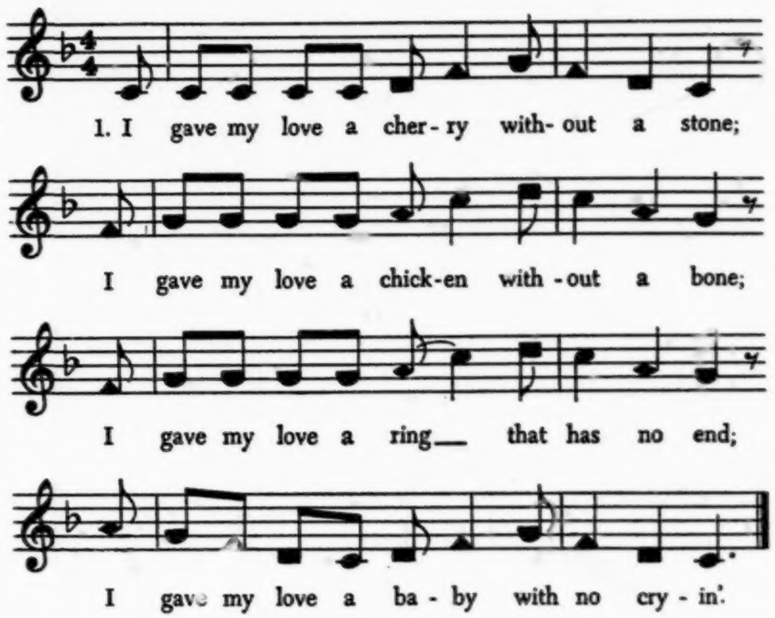
The Ash Grove

OLD WELSH AIR


1. The ash grove, how graceful, how plainly 'tis speaking, The harp through it playing has language for me.
When over its branches the sunlight is breaking, A host of kind faces is gazing on me.
2. My laughter is over, my step loses lightness, Old countryside measures steal soft on my ear;
I only remember the past and its brightness; The dear ones I mourn for again gather here.
The friends of my childhood again are before me, Each step wakes a memory, as freely I roam.
From every dark nook they press forward to meet me, I lift up my eyes to the broad leafy dome;
With soft whispers laden, its leaves rustle o'er me; The ash grove, the ash grove alone is my home.
And others are there, looking downward to greet me; The ash grove, the ash grove alone is my home.

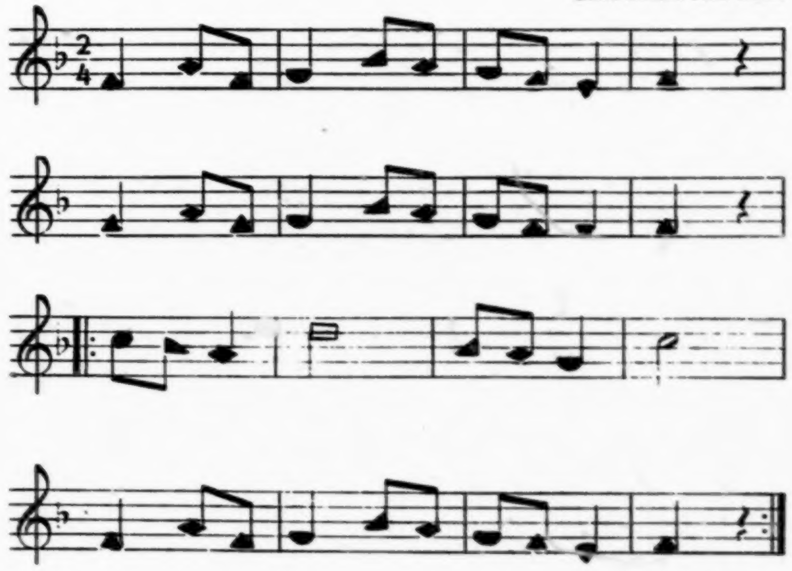
The Riddle Song

FOLK SONG FROM KENTUCKY

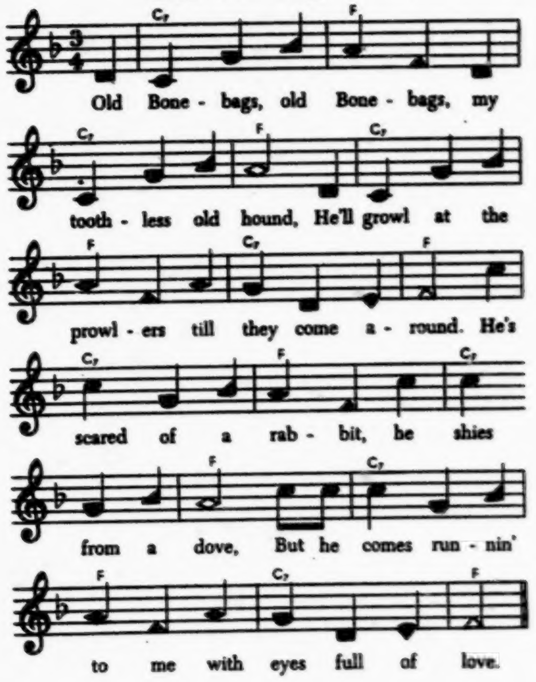

1. I gave my love a cherry without a stone;
I gave my love a chicken without a bone;
I gave my love a ring that has no end;
I gave my love a baby with no cryin'.

Folk Dance

CZECH SINGING FOLK DANCE



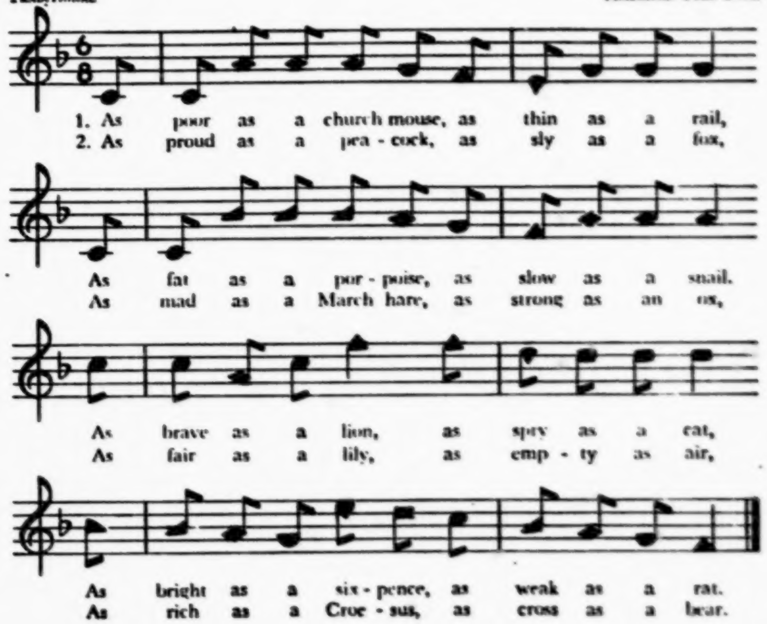
Old Bonebags


C7 F C7 F C7 F C7 F C7 F C7 F C7 F C7 F
Old Bone - bags, old Bone - bags, my
tooth - less old hound, He'll growl at the
prowl - ers till they come a - round. He's
scared of a rab - bit, he shies
from a dove, But he comes run - nin'
to me with eyes full of love.

Old Sayings

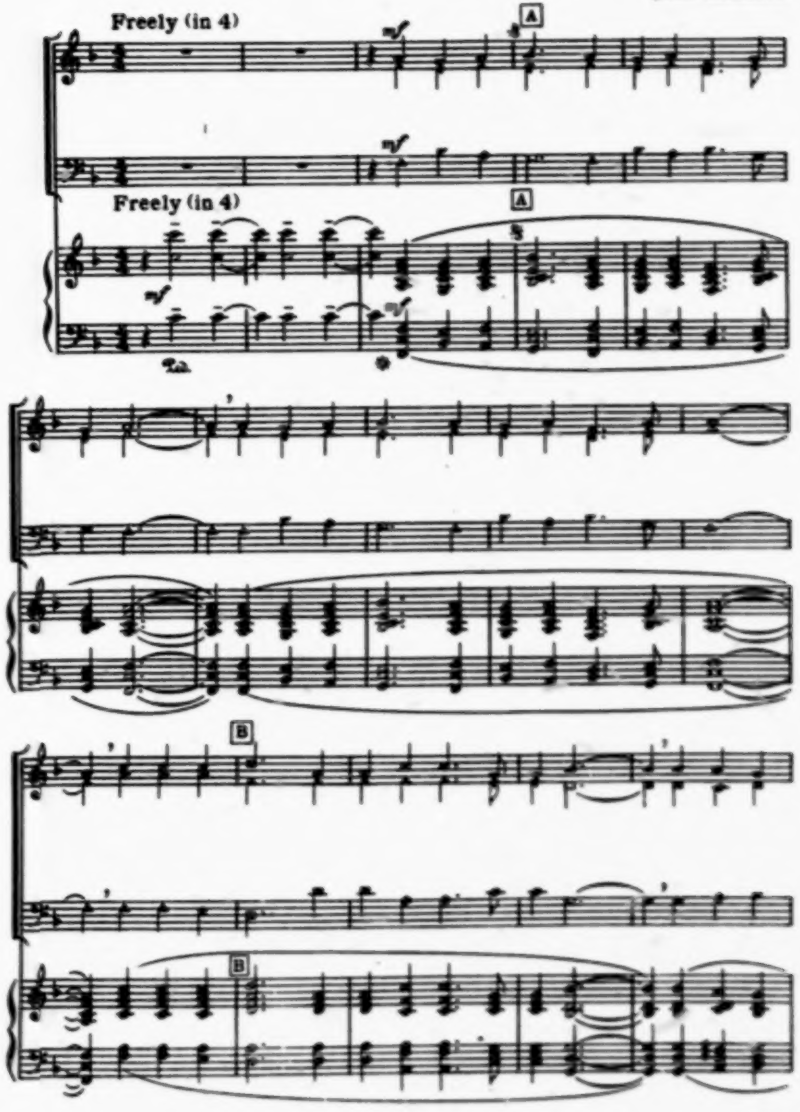
TRADITIONAL

AMERICAN FOLK SONG

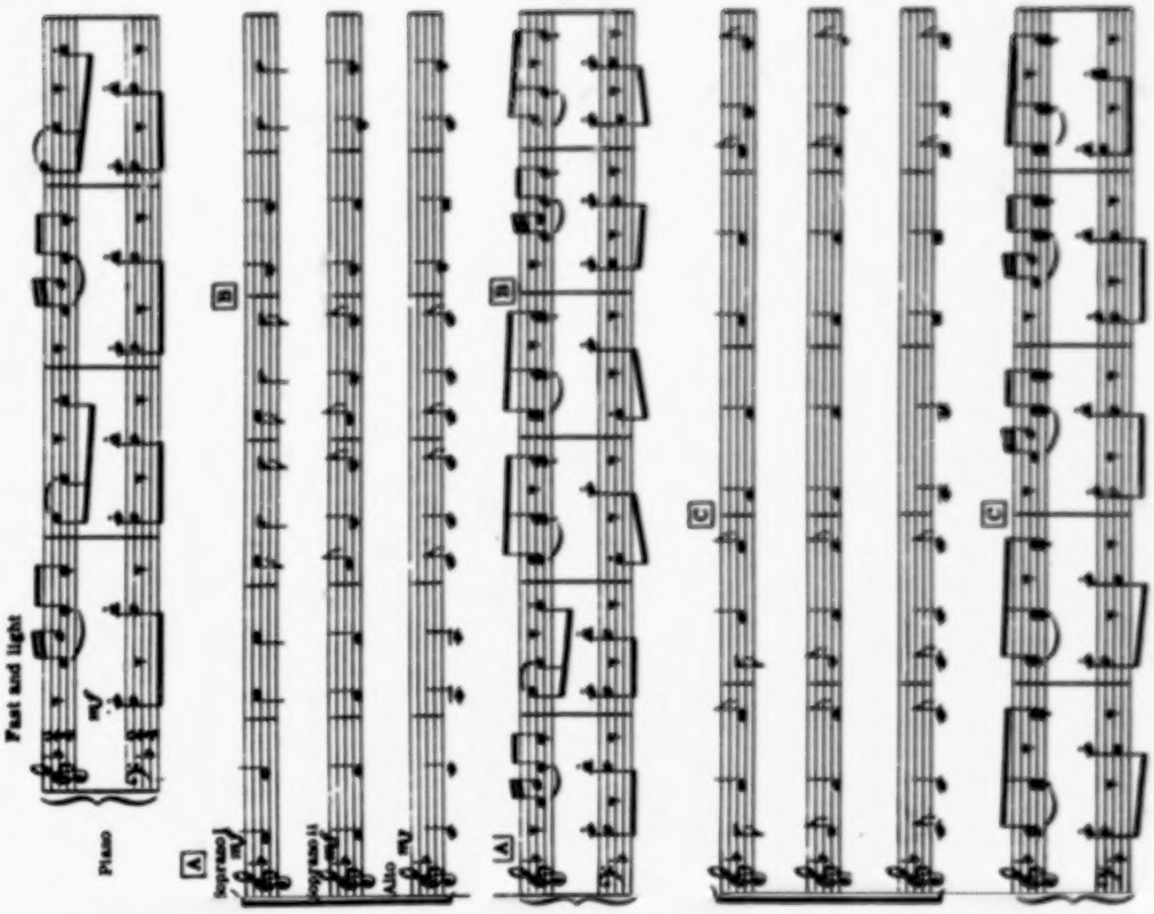

1. As poor as a church mouse, as thin as a rail,
2. As proud as a pea - cock, as sly as a fox,
As fat as a por - poise, as slow as a snail.
As mad as a March hare, as strong as an ox,
As brave as a lion, as spry as a cat,
As fair as a lily, as emp - ty as air,
As bright as a six - pence, as weak as a rat.
As rich as a Croe - sus, as cross as a bear.

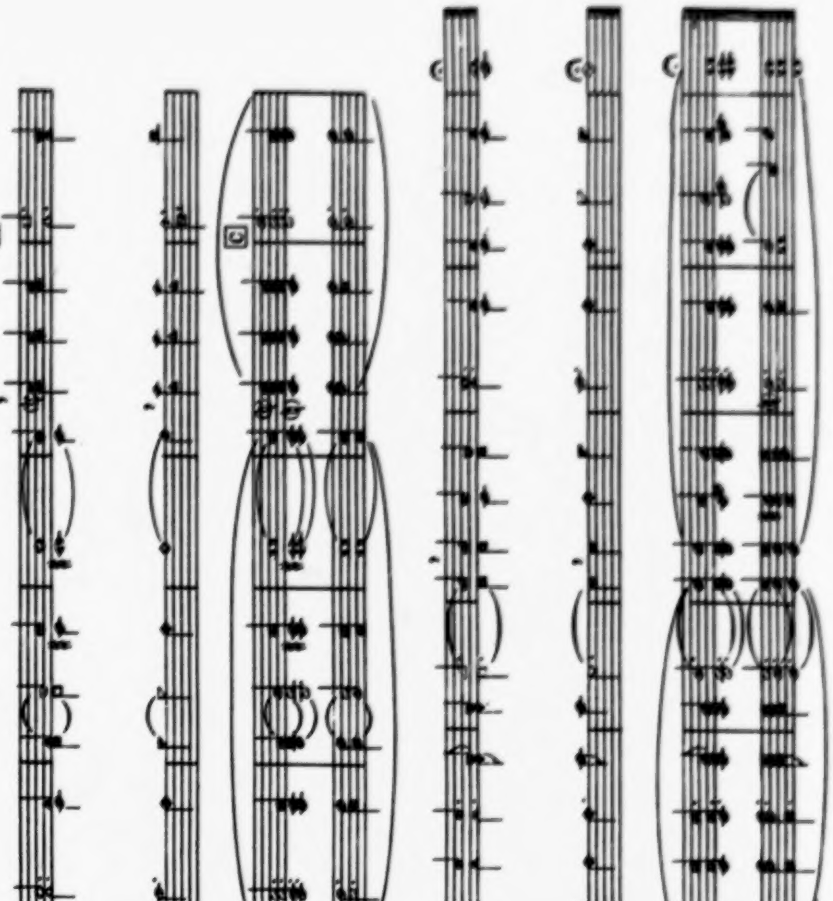
Finlandia

JEAN SIBELIUS



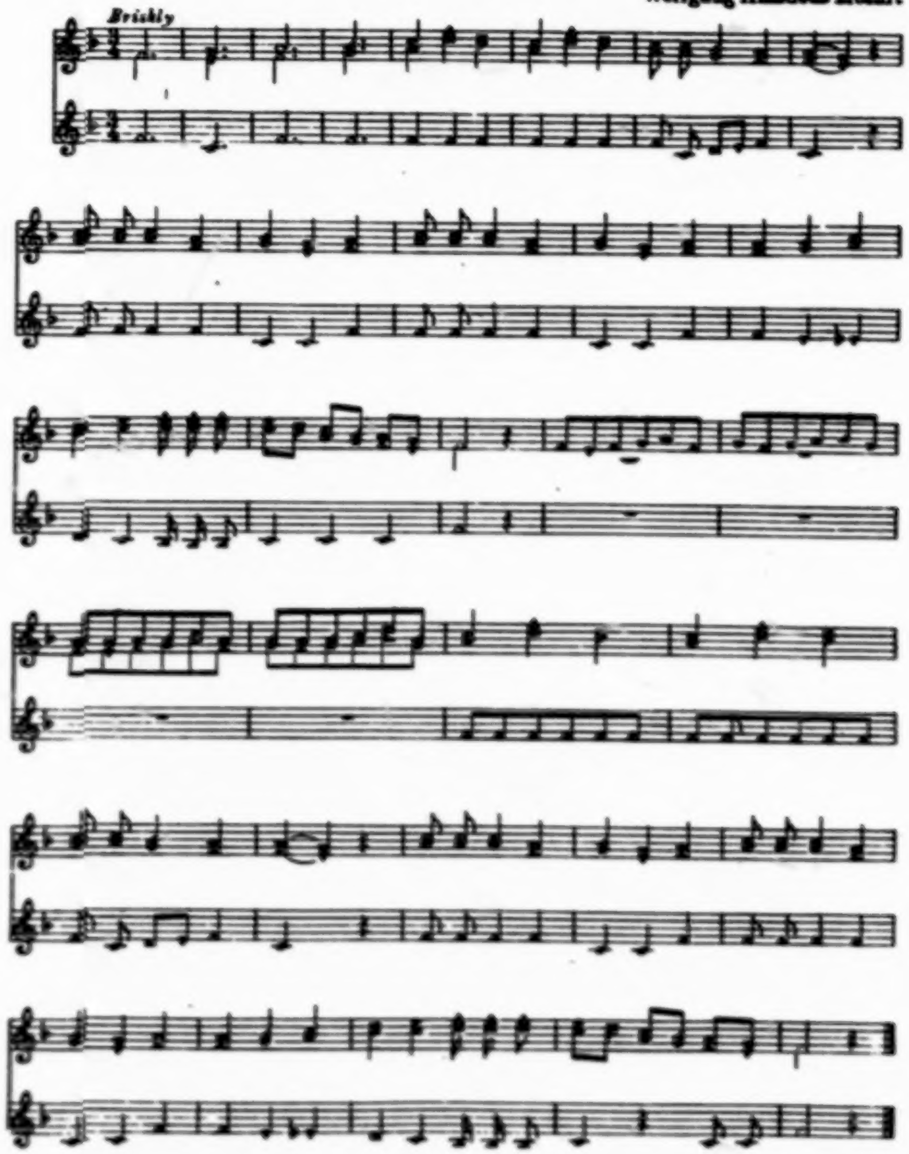
CZECHOSLOVAKIAN FOLK SONG

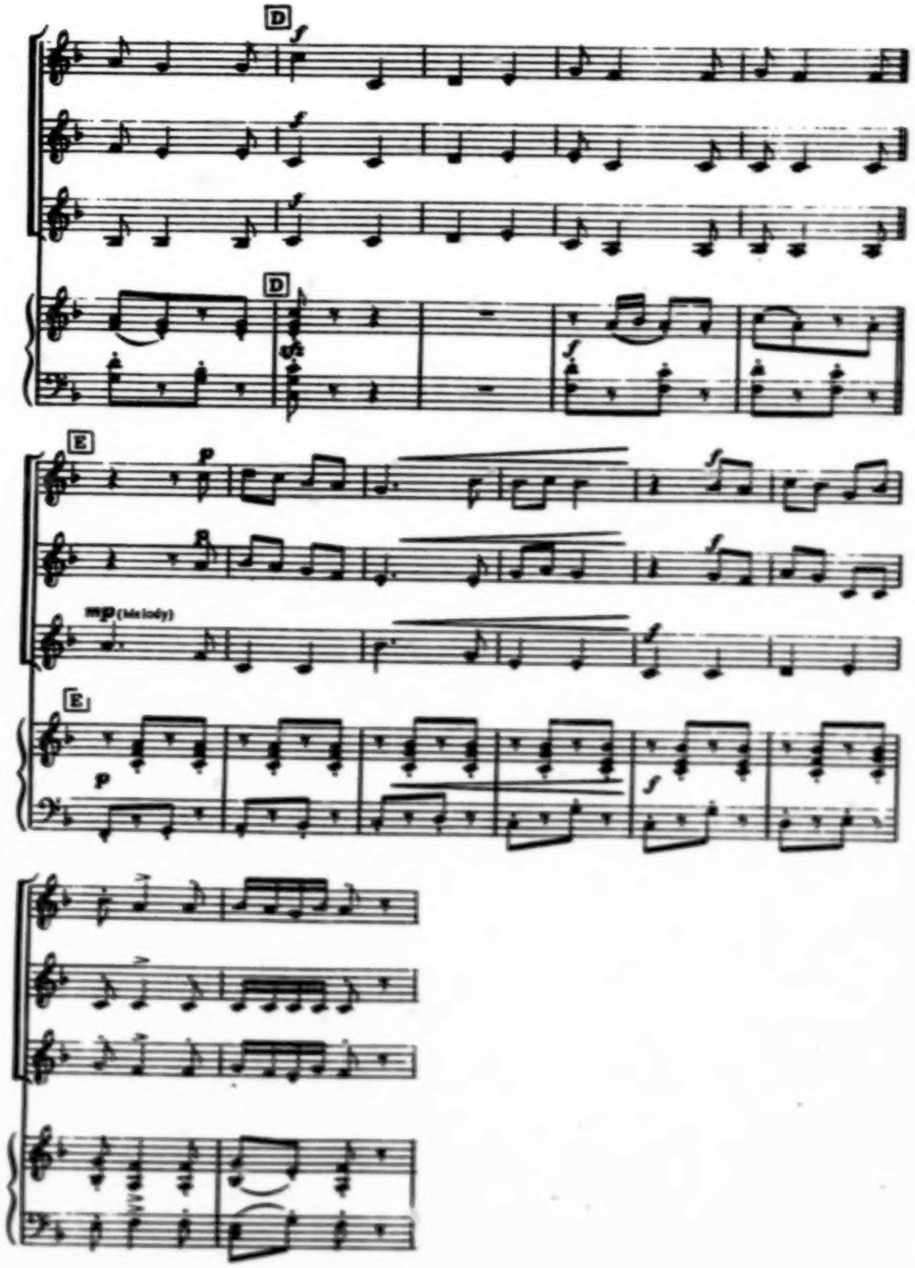




The Alphabet

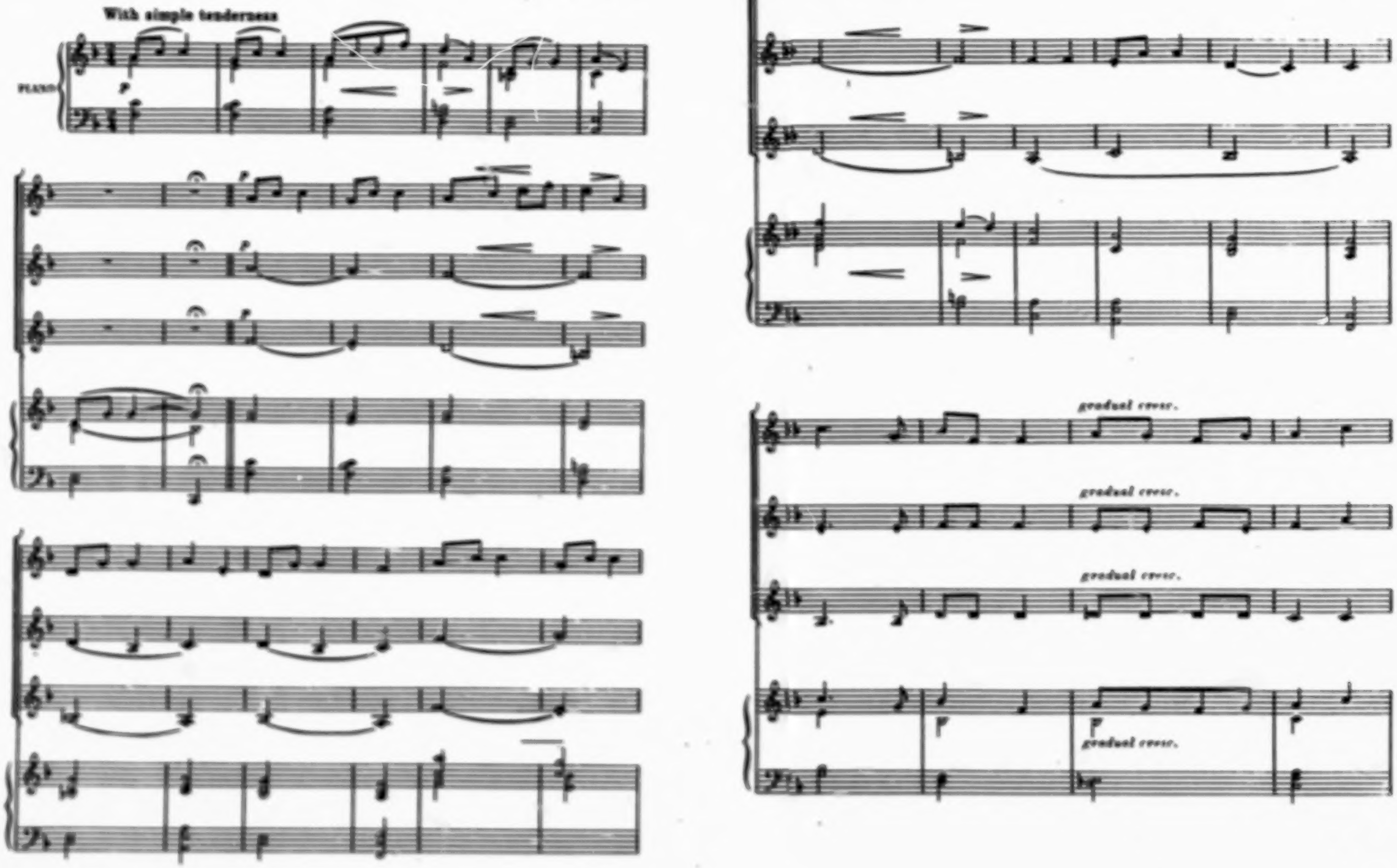
Wolfgang Amadeus Mozart

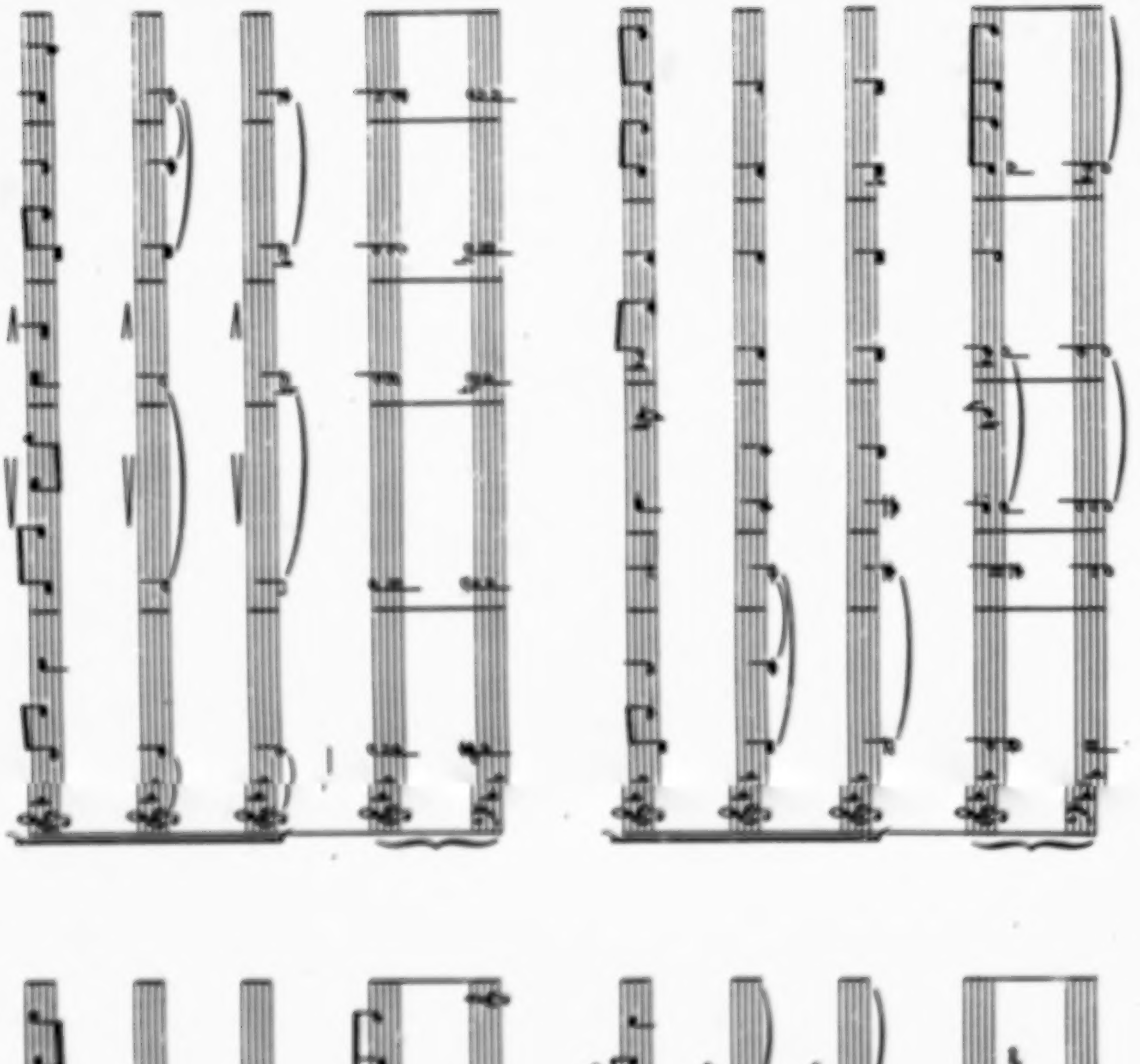


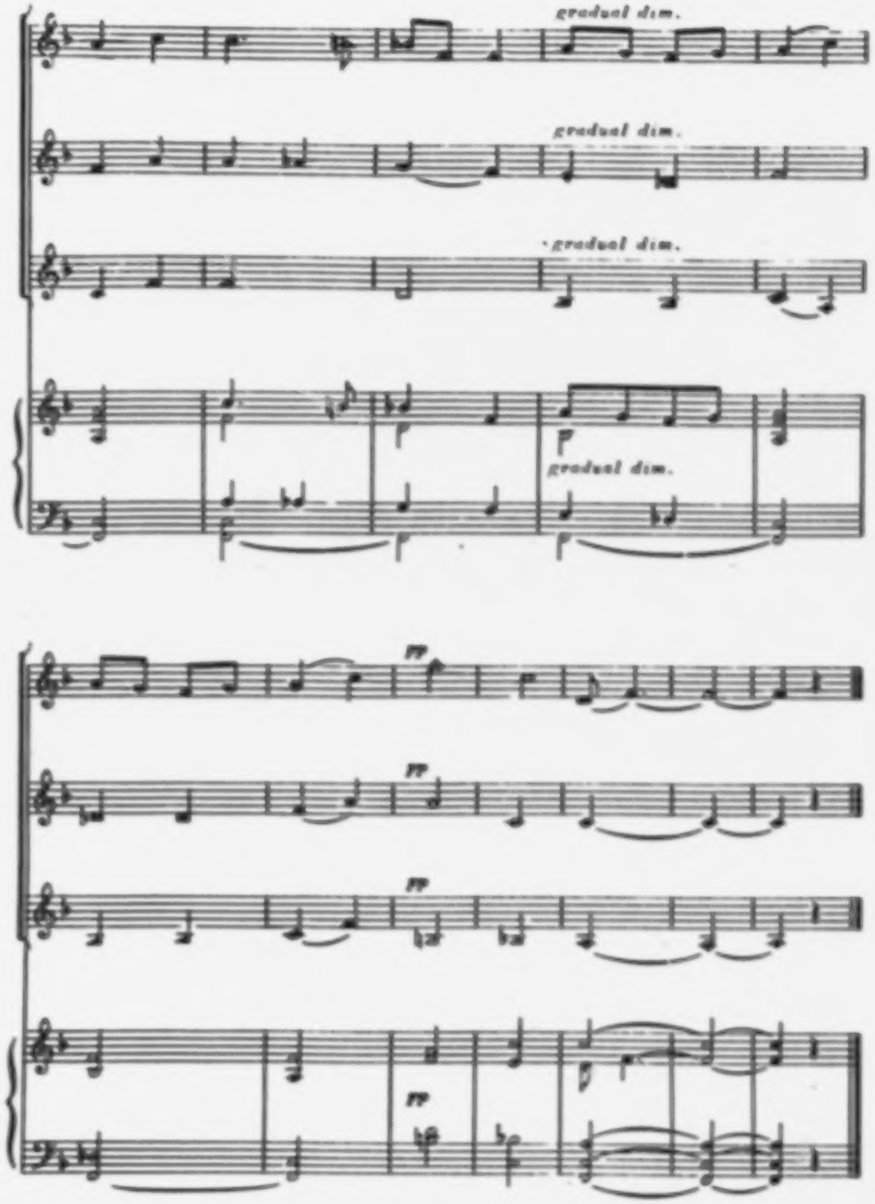


To a Wild Rose

Edward MacDowell

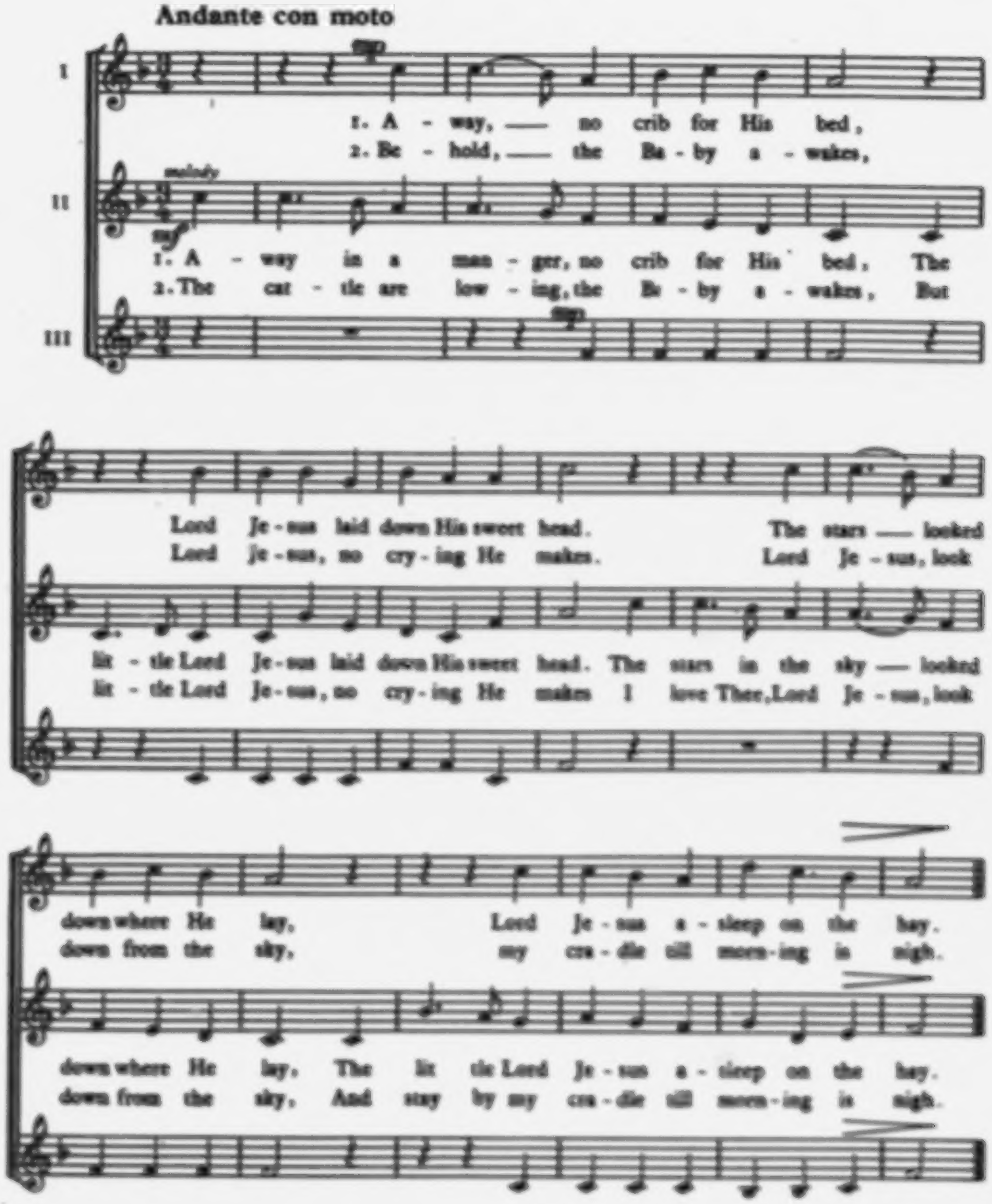






AWAY IN A MANGER

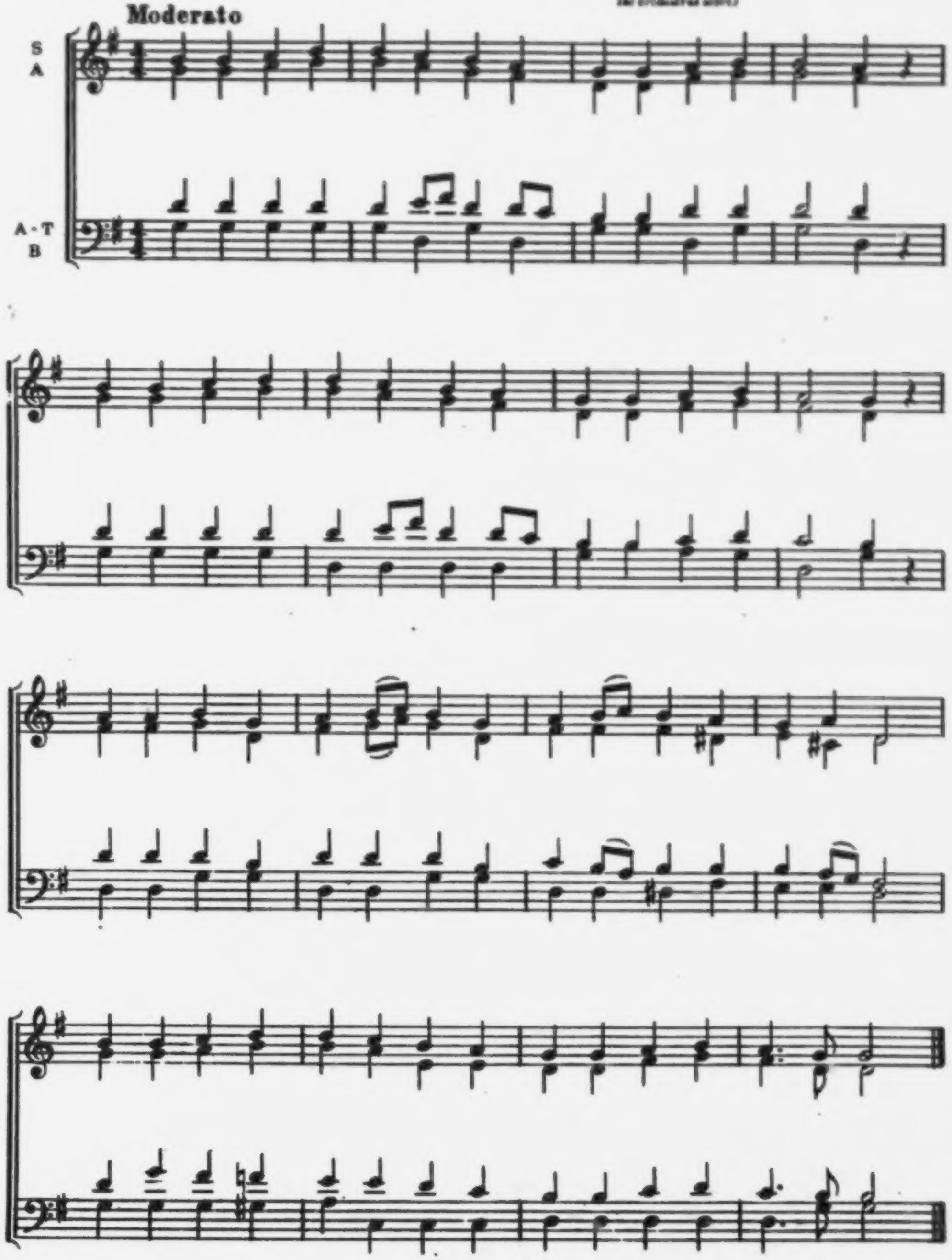
Martin LUTHER


Andante con moto
I
II
III
mp
melody
mf
mp
1. A - way, — no crib for His bed,
2. Be - hold, — the Ba - by a - wakes,
1. A - way in a man - ger, no crib for His bed, The
2. The cat - tle are low - ing, the Ba - by a - wakes, But
Lord Je - sus laid down His sweet head. The stars — looked
Lord Je - sus, no cry - ing He makes. Lord Je - sus, look
lit - tle Lord Je - sus laid down His sweet head. The stars in the sky — looked
lit - tle Lord Je - sus, no cry - ing He makes I love Thee, Lord Je - sus, look
down where He lay, Lord Je - sus a - sleep on the hay.
down from the sky, my cra - dle till morn - ing is nigh.
down where He lay. The lit tle Lord Je - sus a - sleep on the hay.
down from the sky, And stay by my cra - dle till morn - ing is nigh.

Hymn to Joy

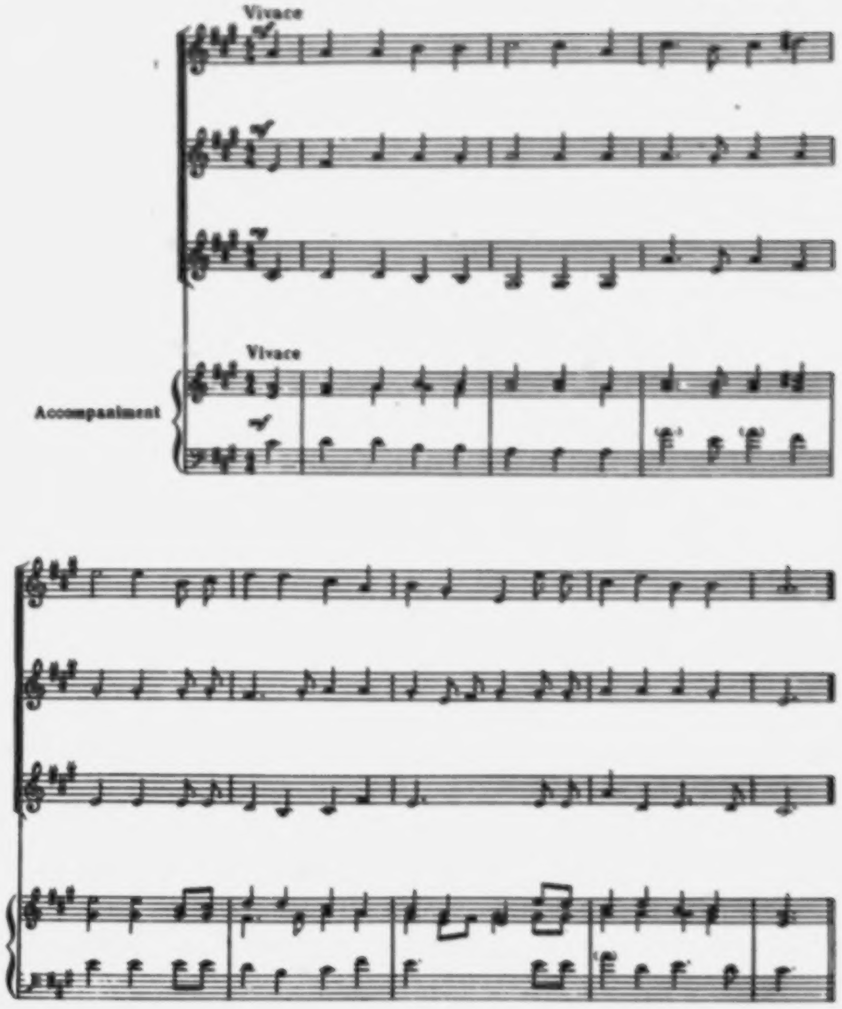
J.C. Friedrich von Schiller

Ludwig van Beethoven
from *Symphony No.9*
(Piano part arranged from
the orchestral score)



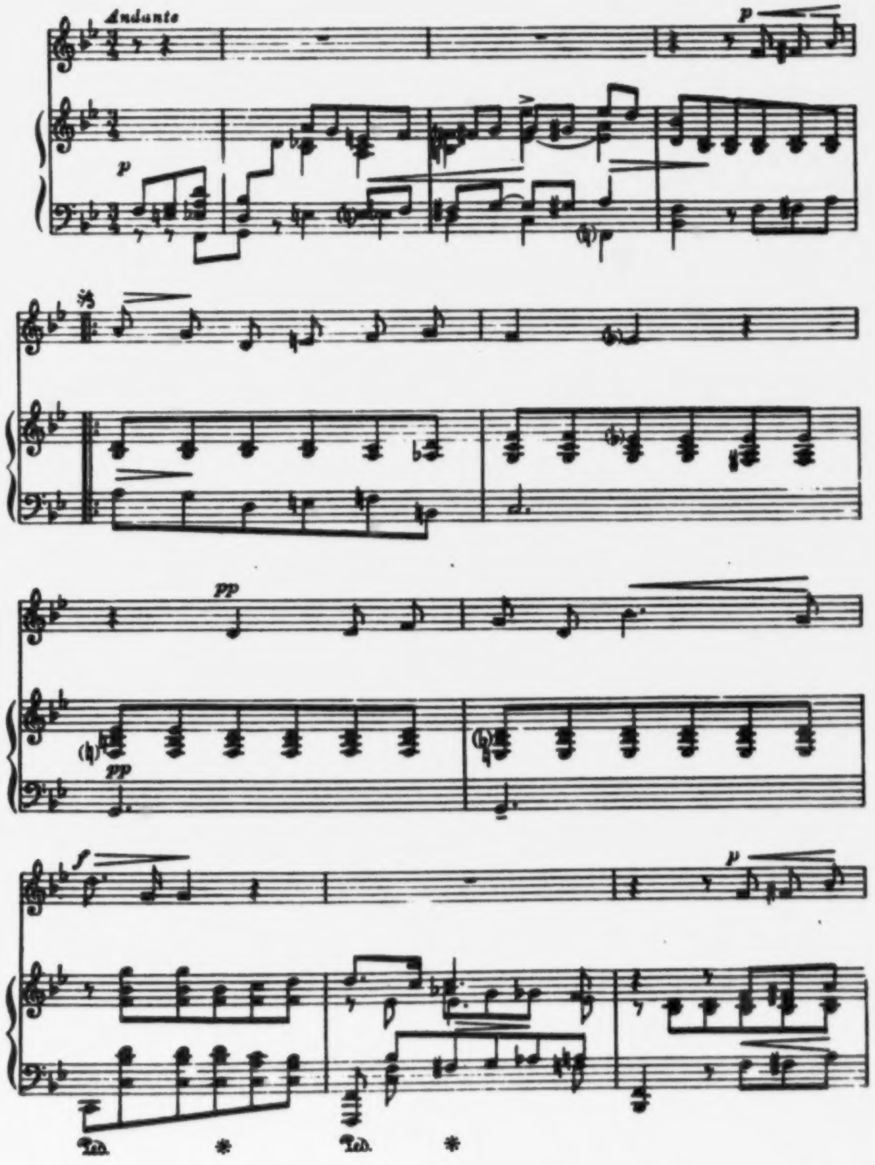
Now is the month of Maying

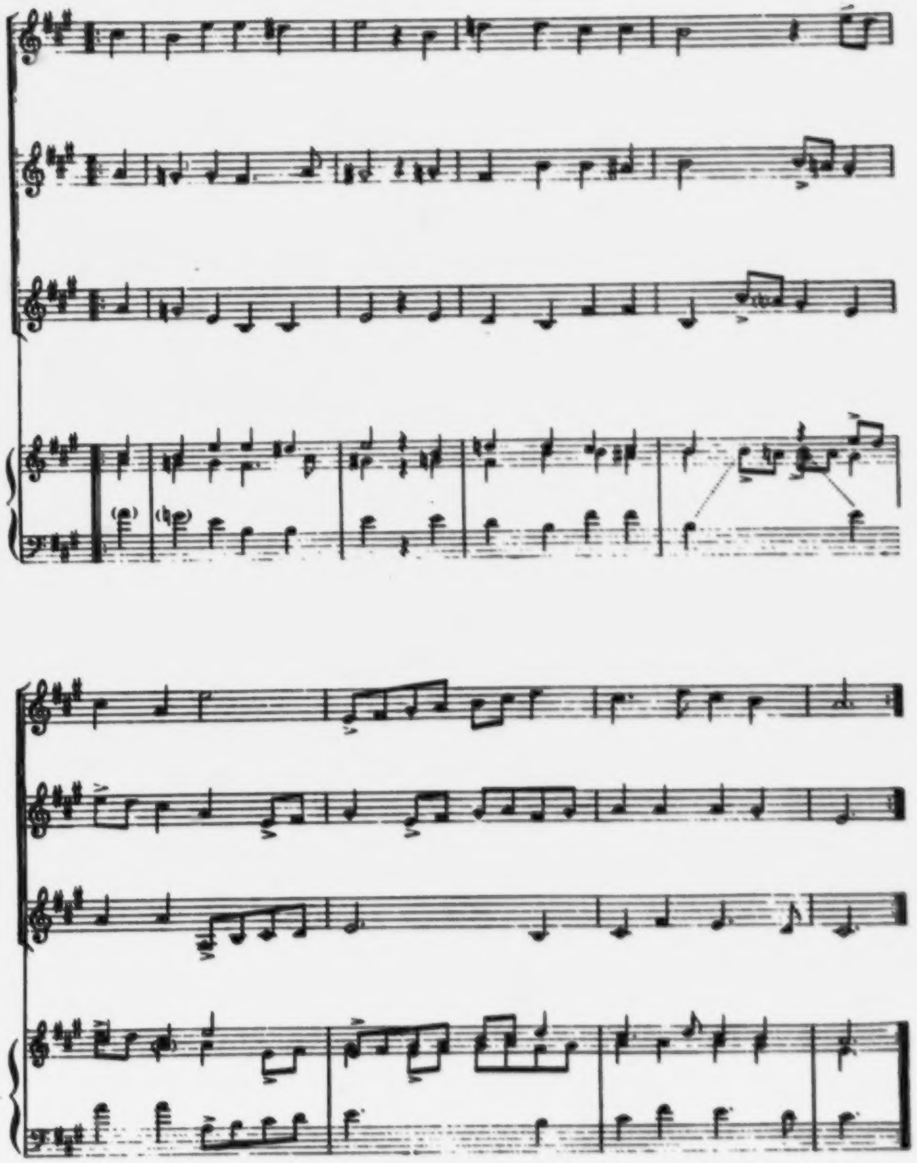
Thomas Morley
(1557-[illegible])



I Love Thee

Edvard Grieg

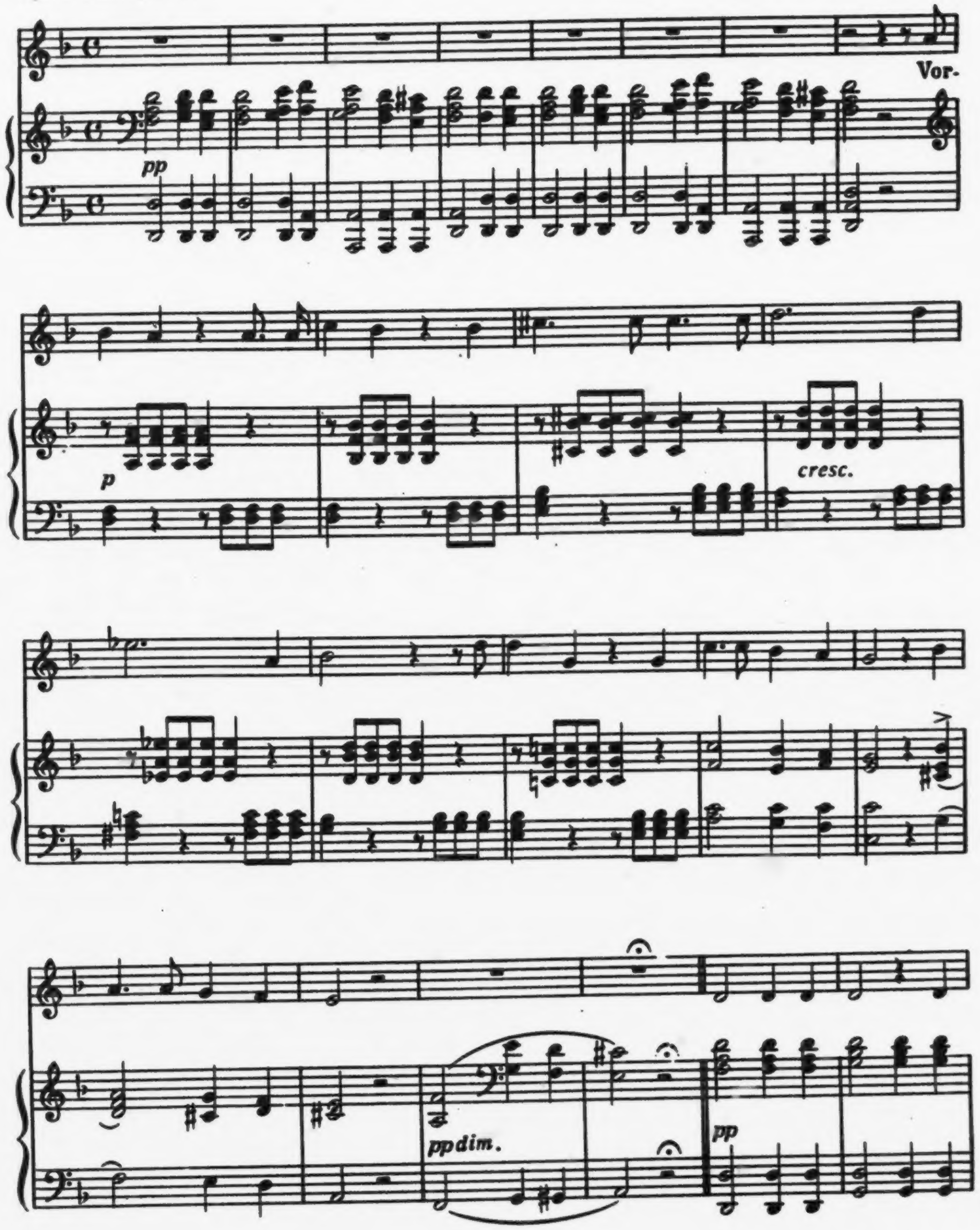


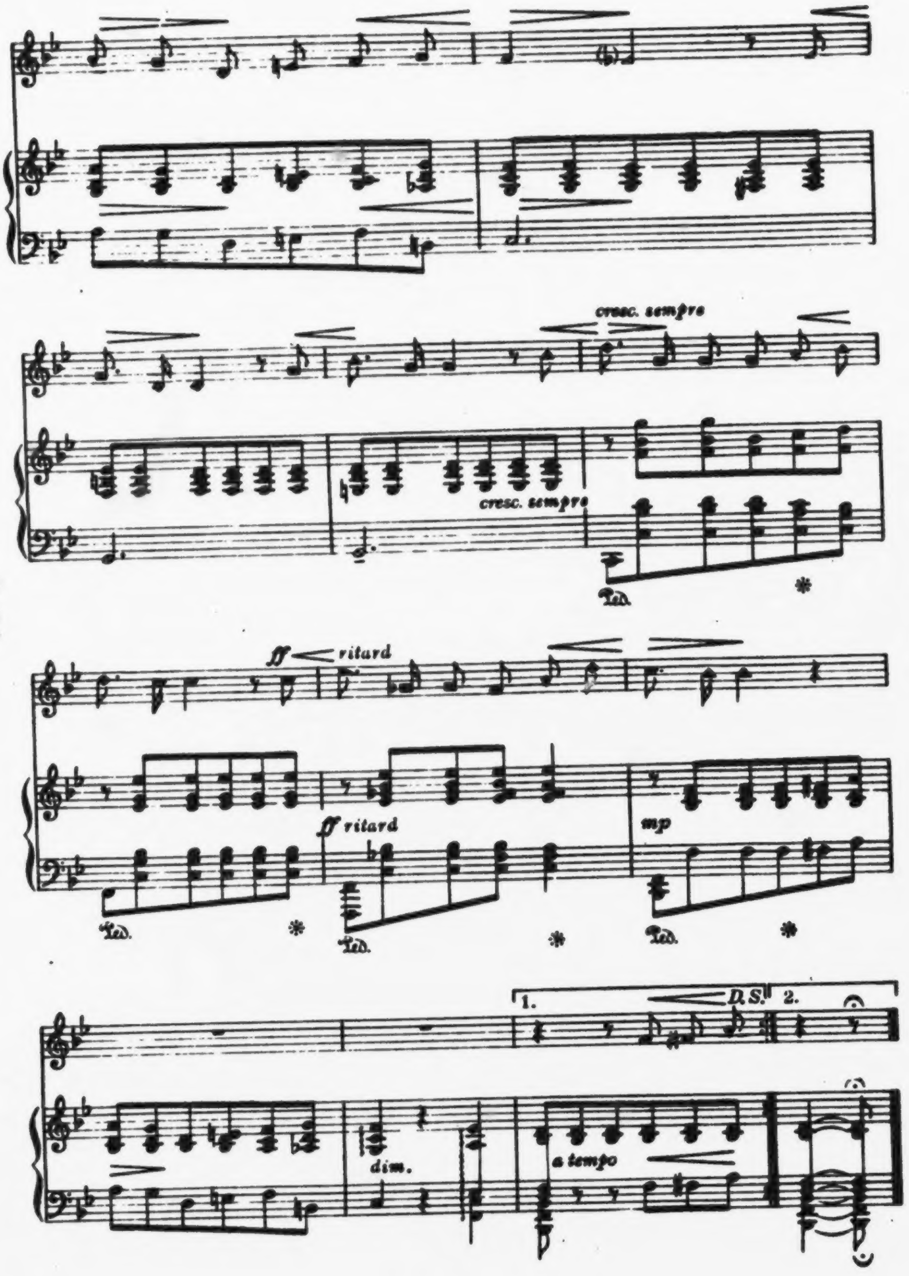


Der Tod und das Mädchen

op. 7 Nr. 3, 1817

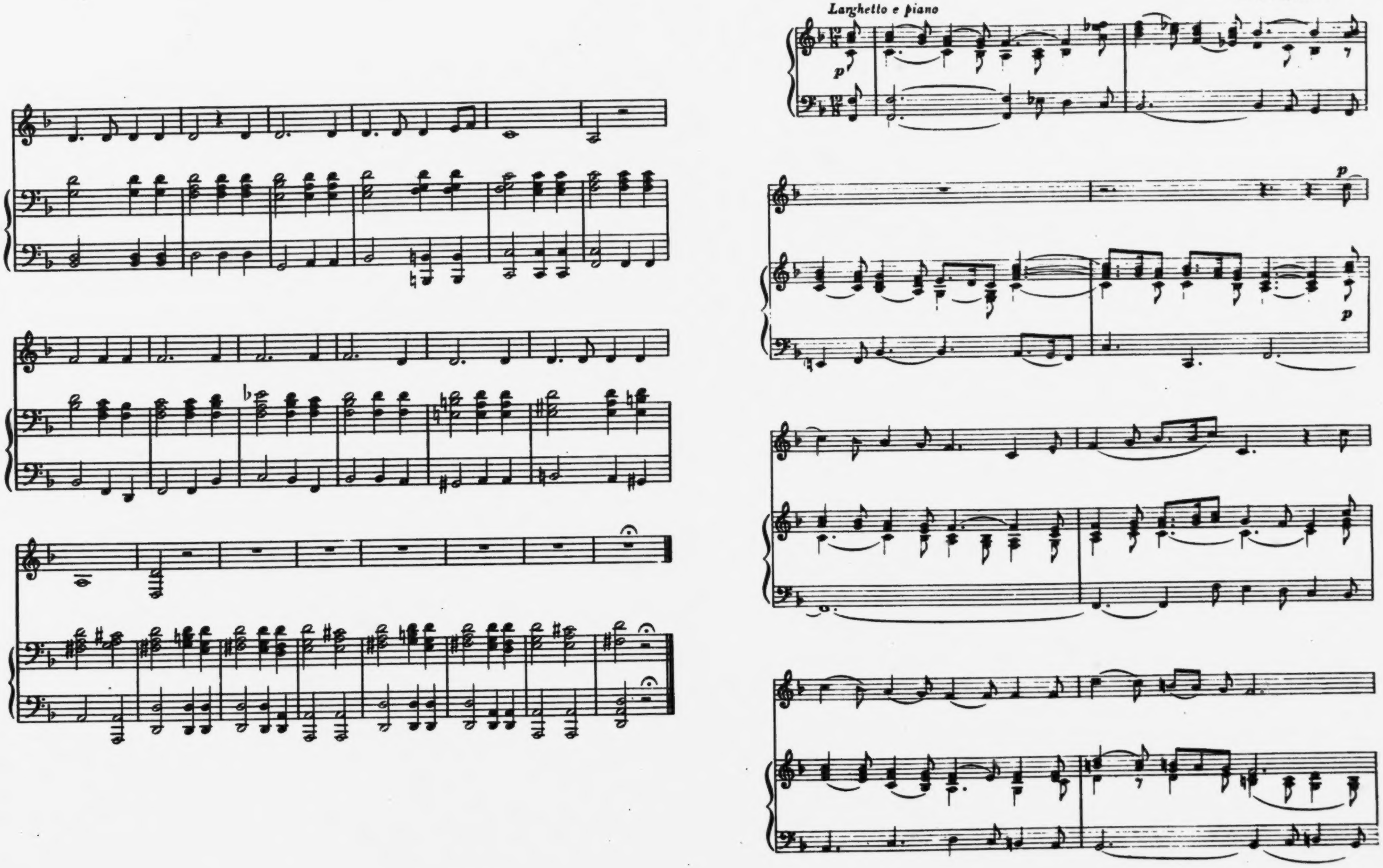
Franz Schubert, 1797-1828

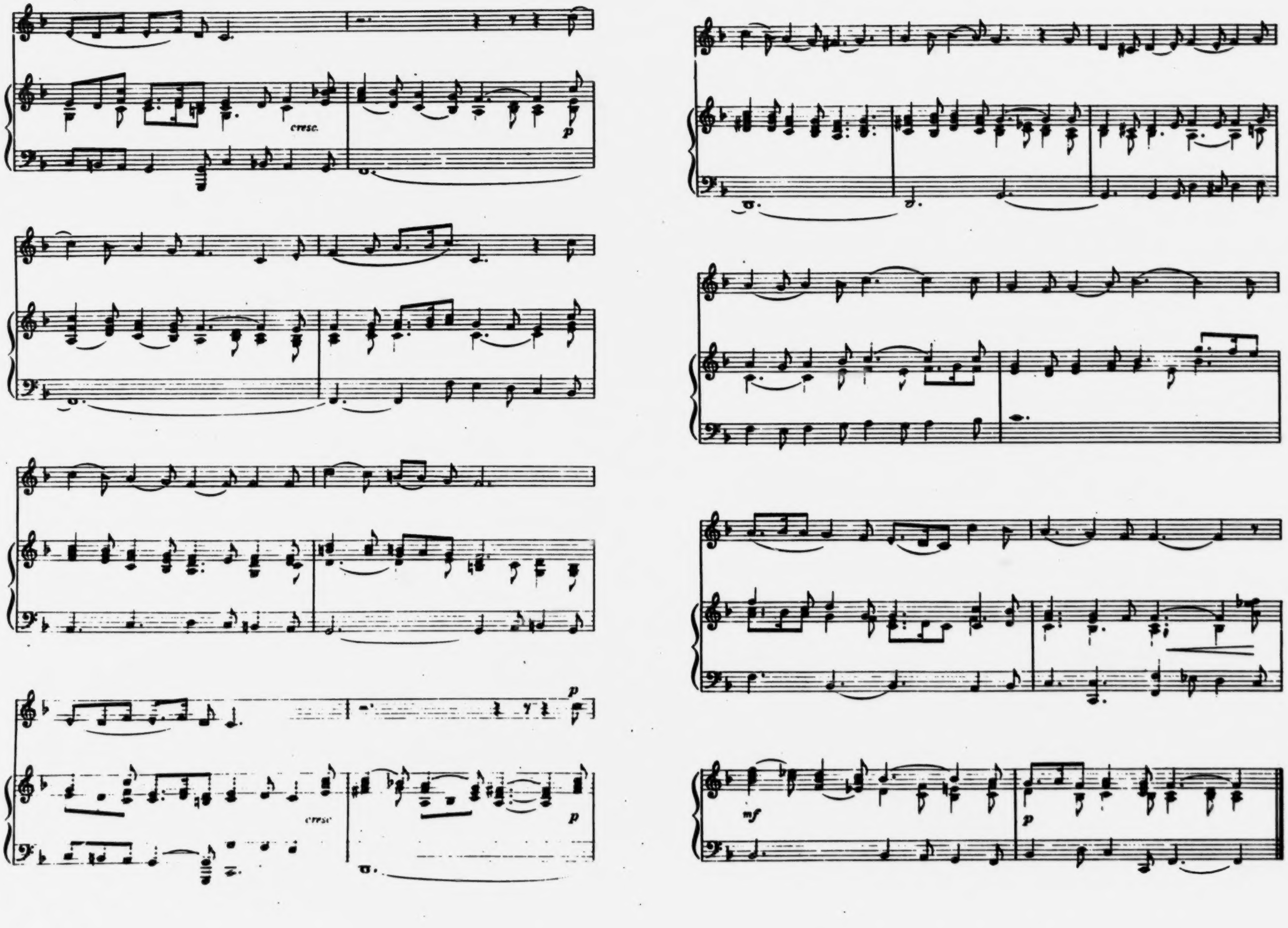




He Shall Feed His Flock

George Frederick Handel
in *The Messiah*




cresc.
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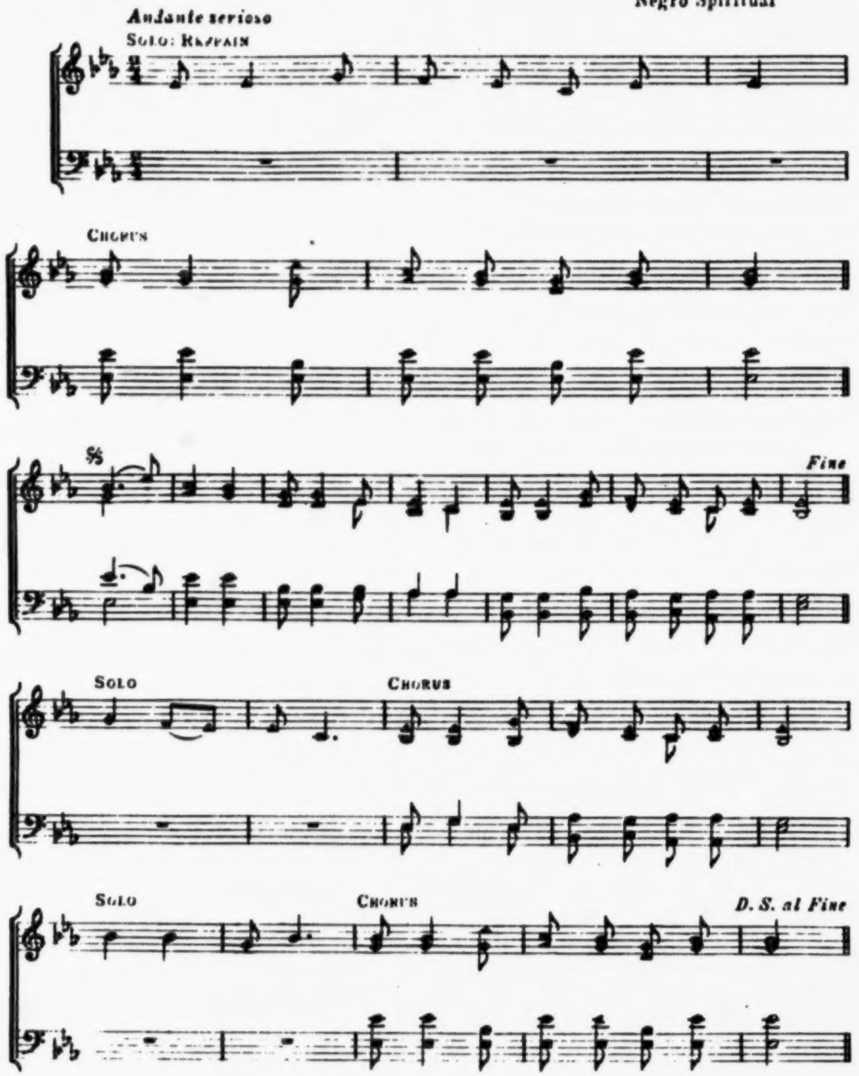
Somebody's Knocking at Your Door

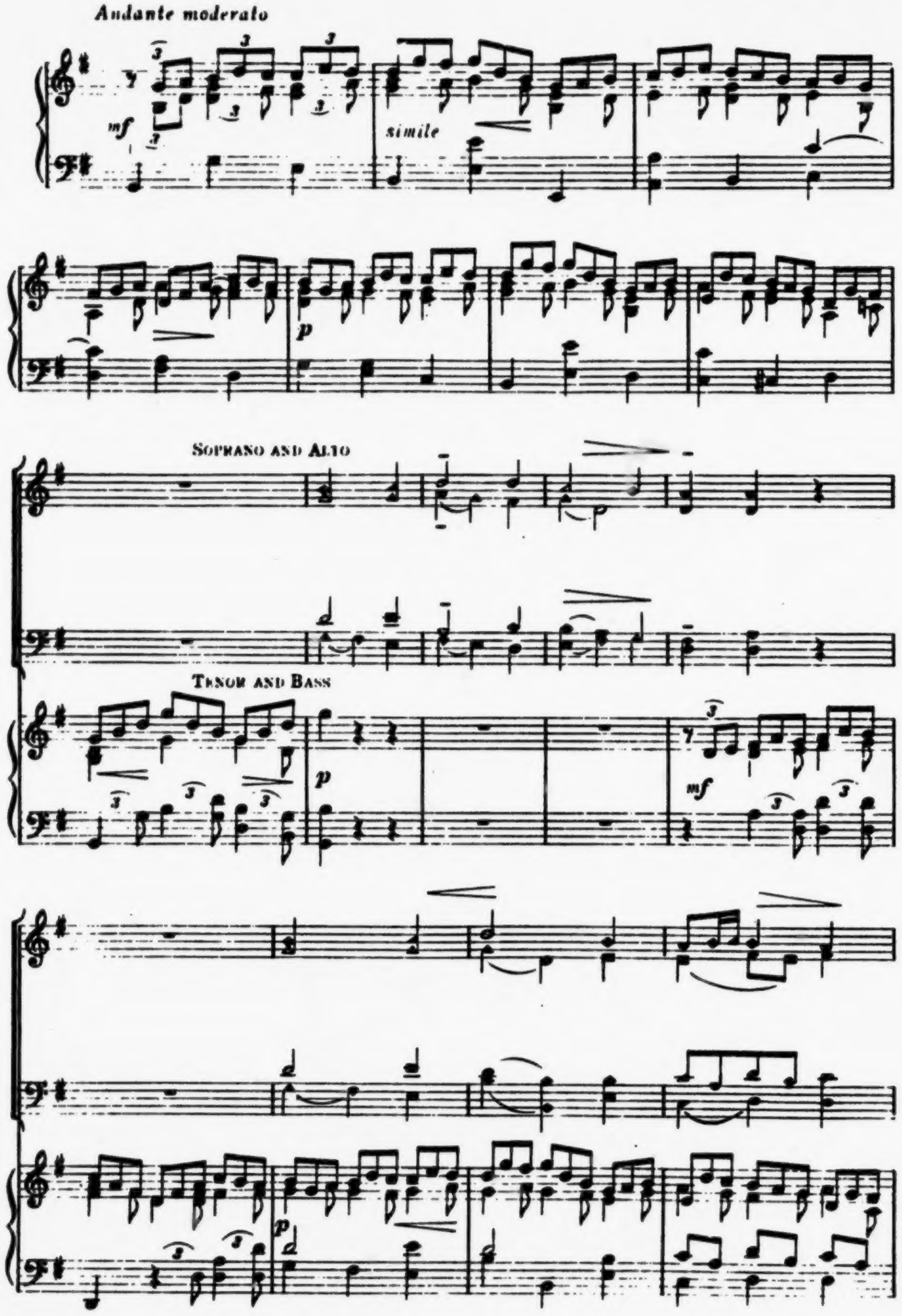
Traditional

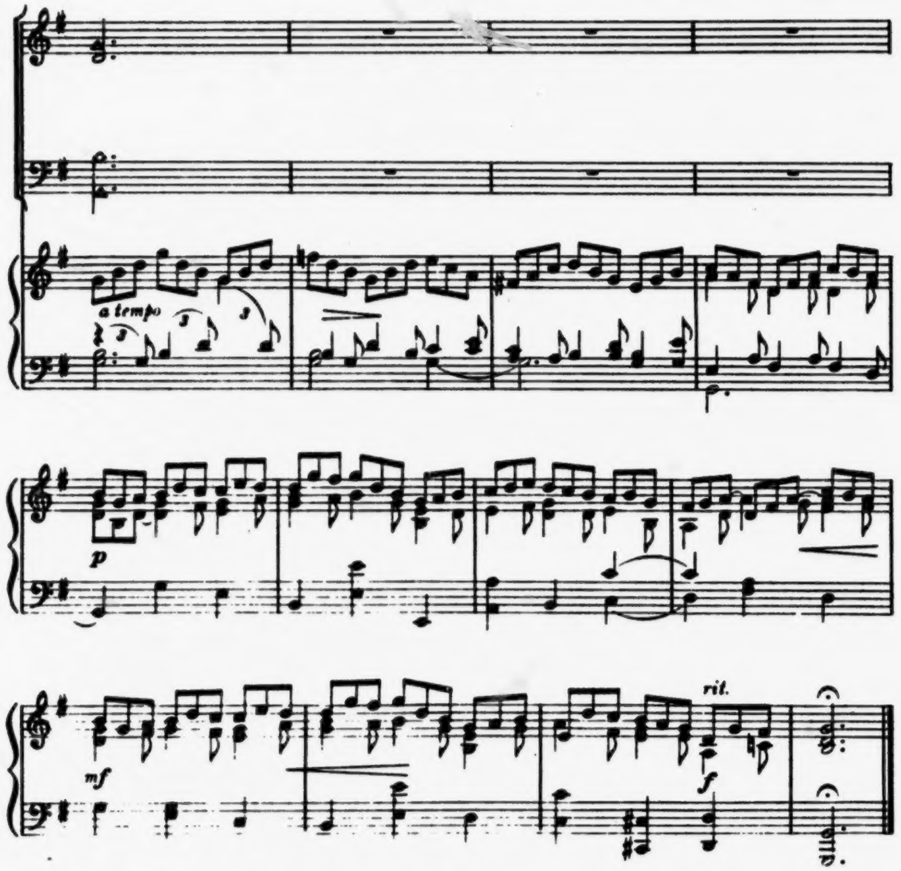
Negro Spiritual



Jesu, Joy of Man's Desiring

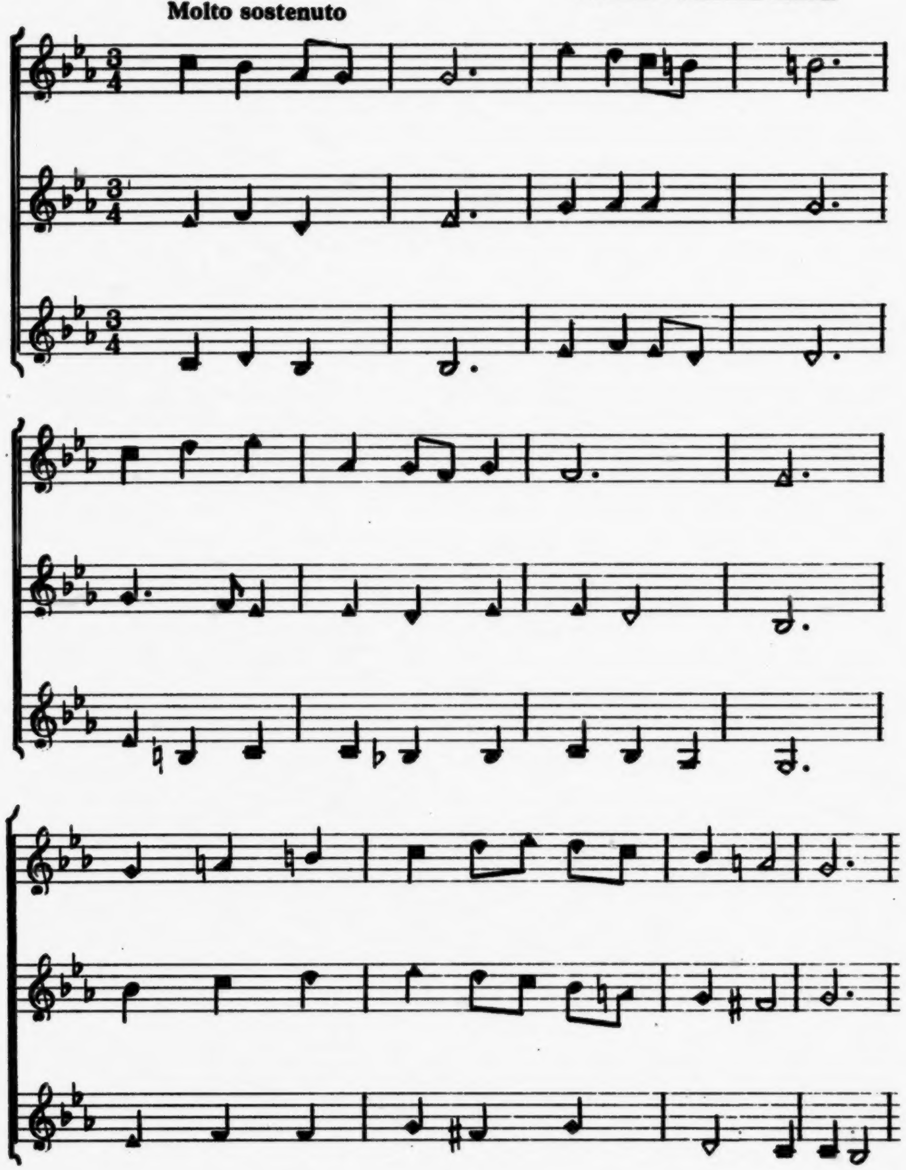
Johann Sebastian Bach





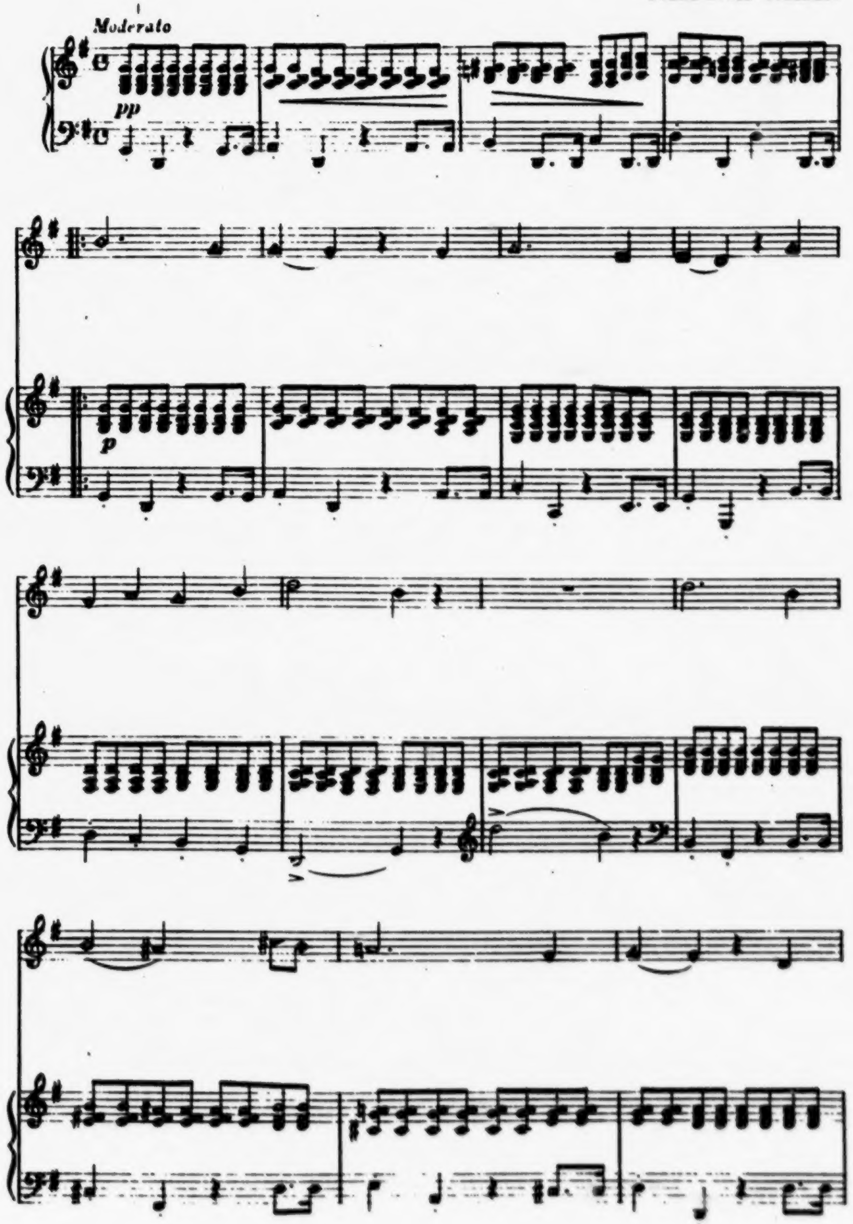
COME, BLESSED PEACE

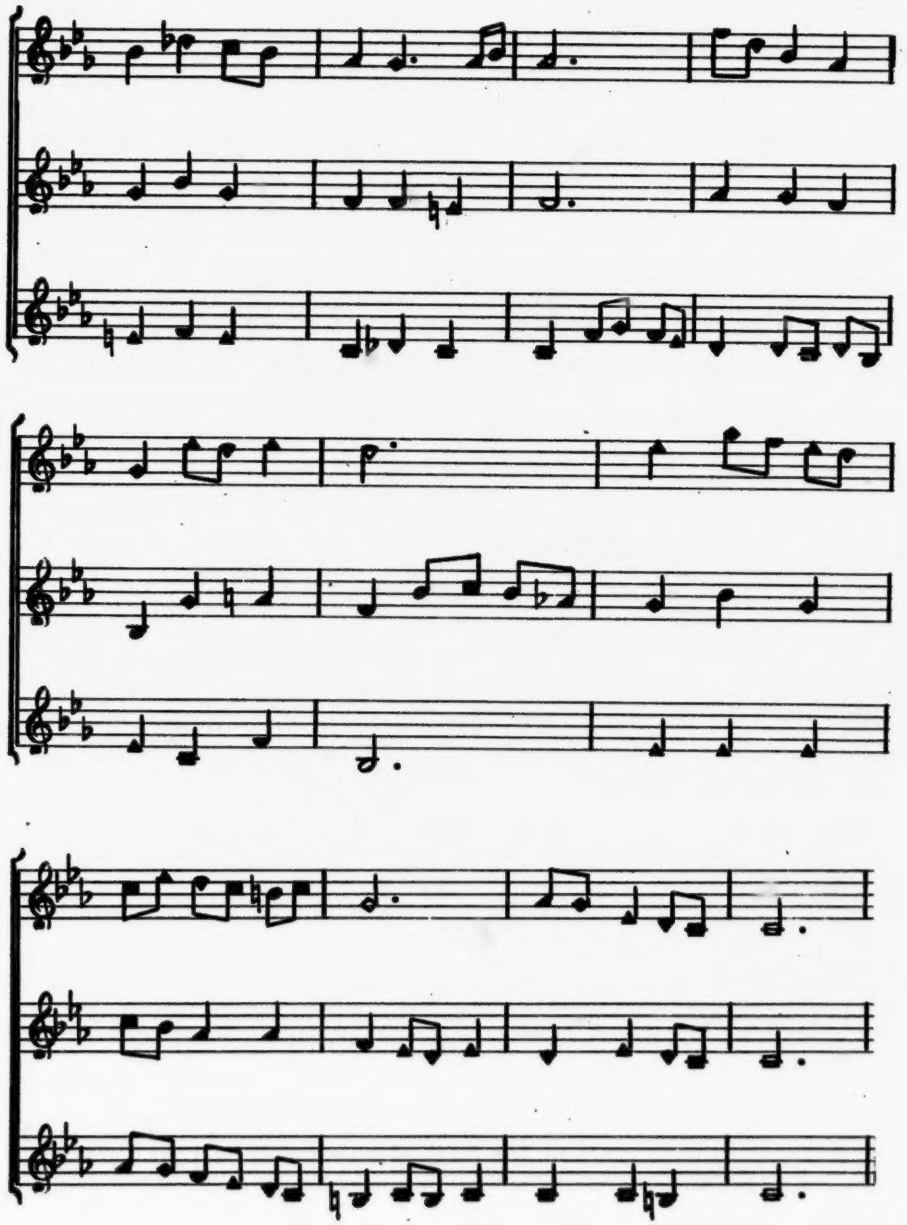
Johann Sebastian BACH

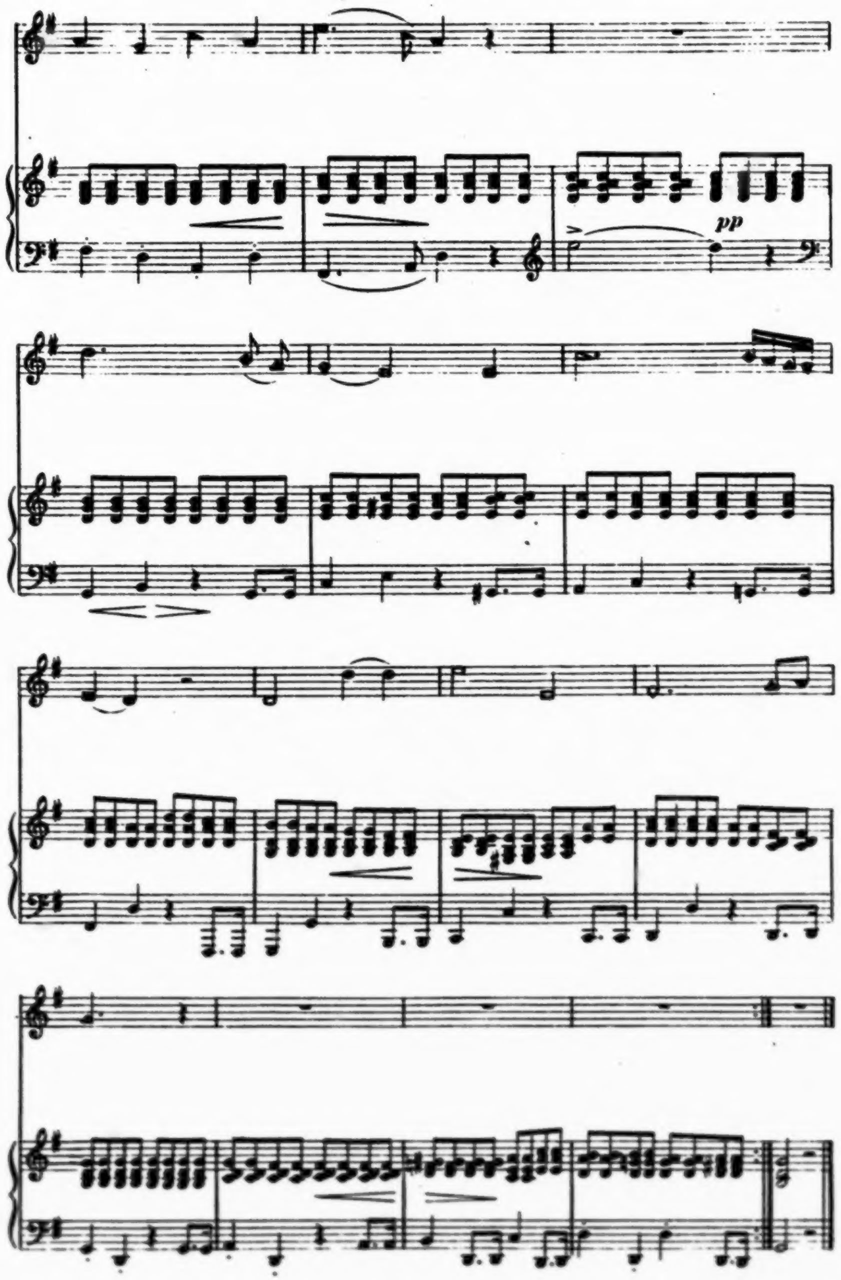


Who Is Sylvia?

Franz Peter Schubert

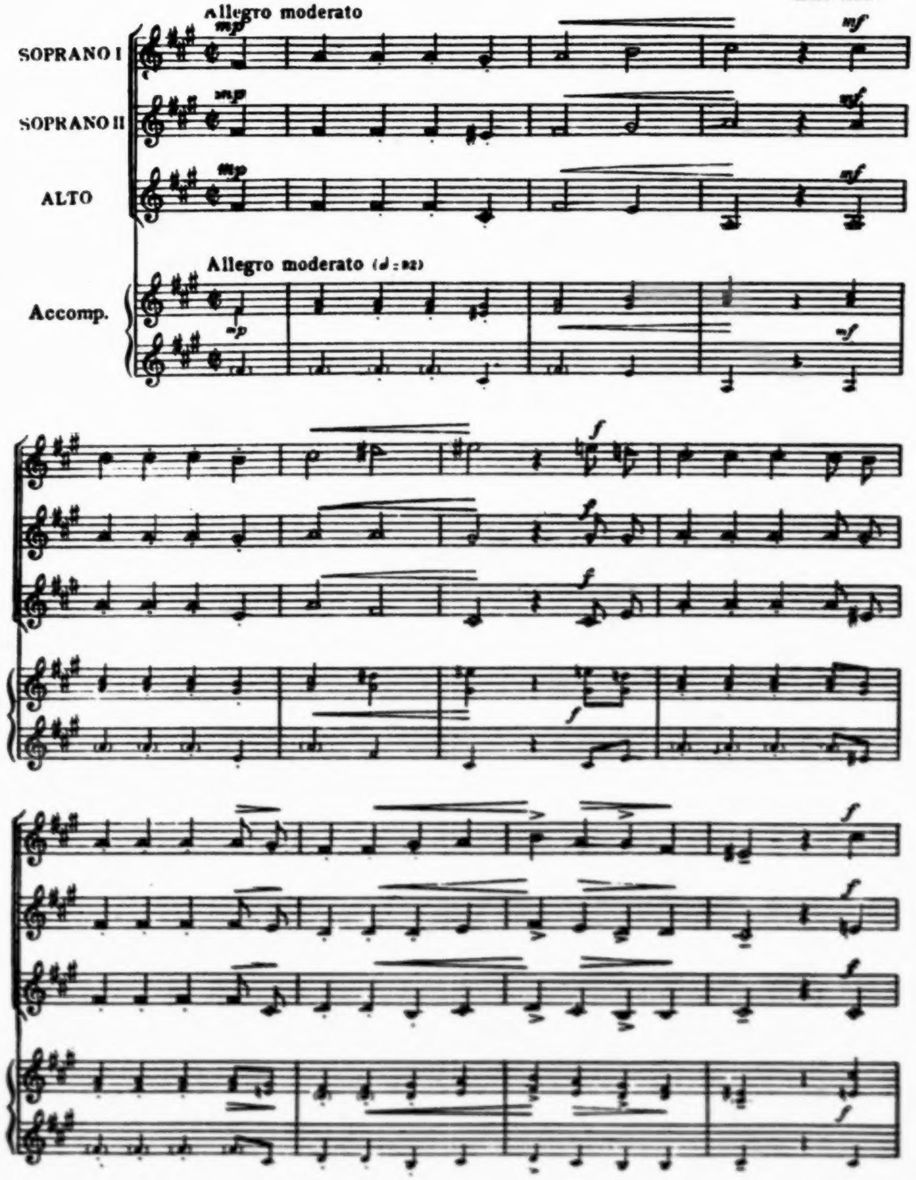


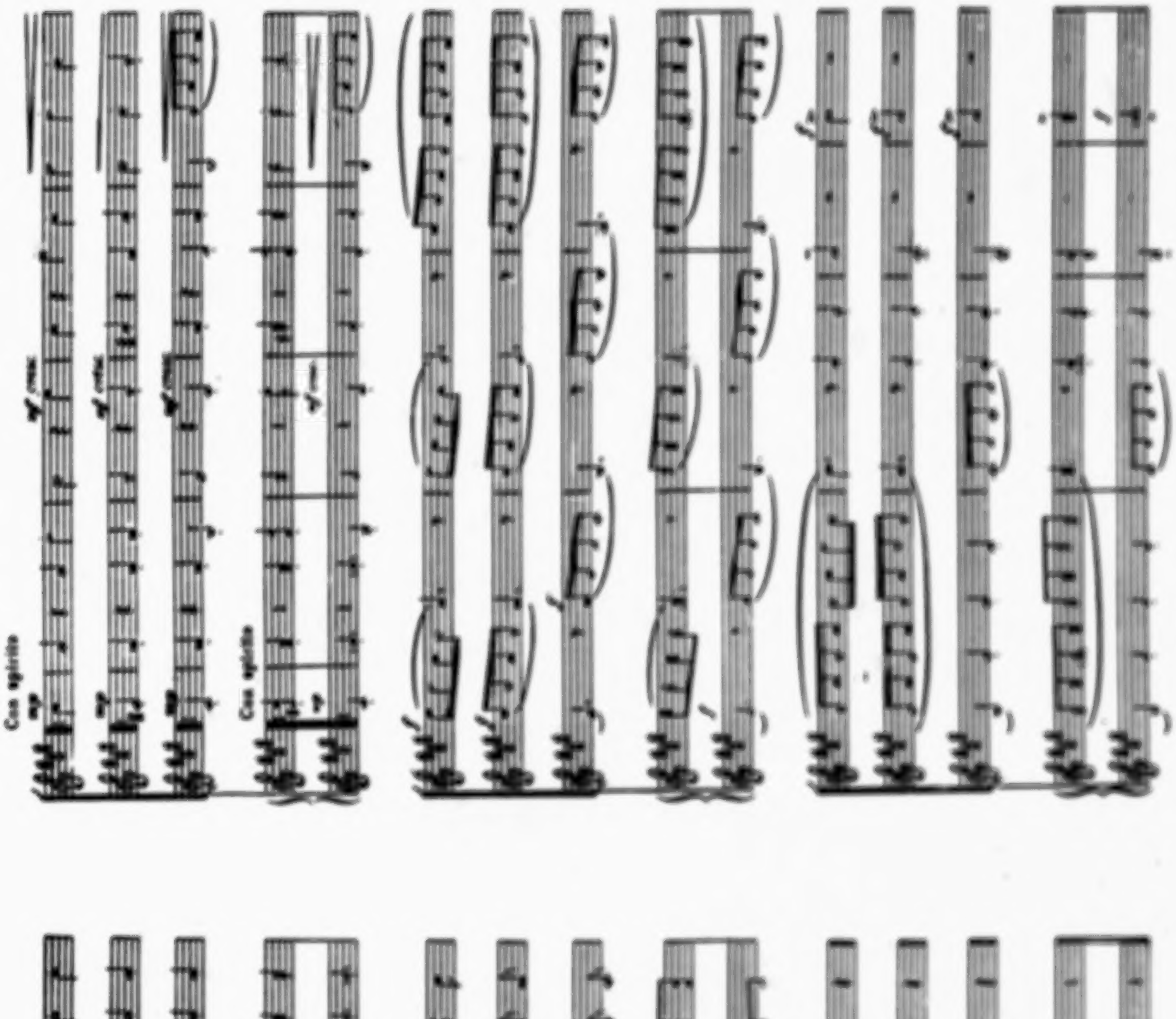




In these delightful, pleasant groves

Henry Purcell
(1658-1695)



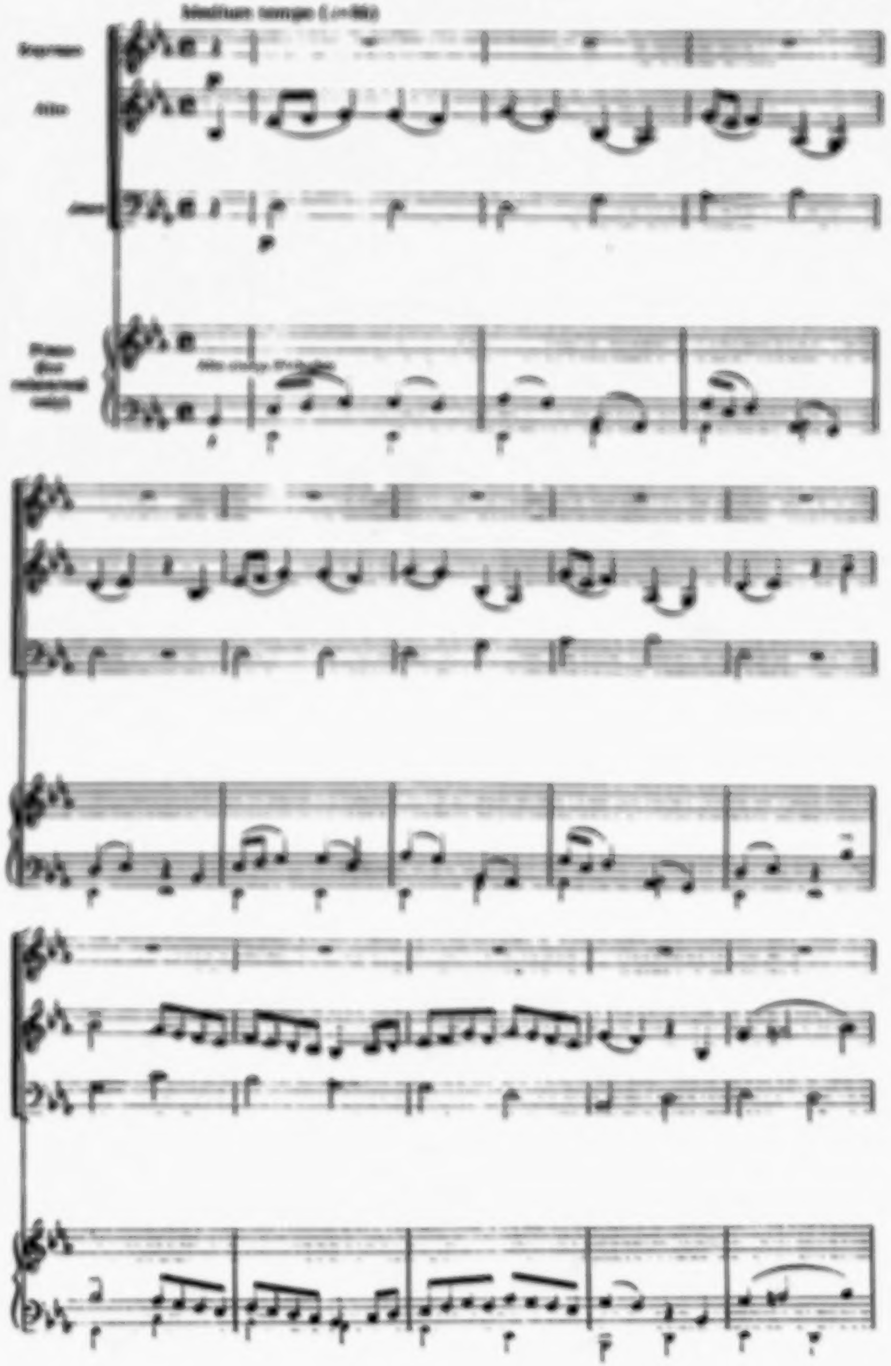

Con spirito
Con spirito

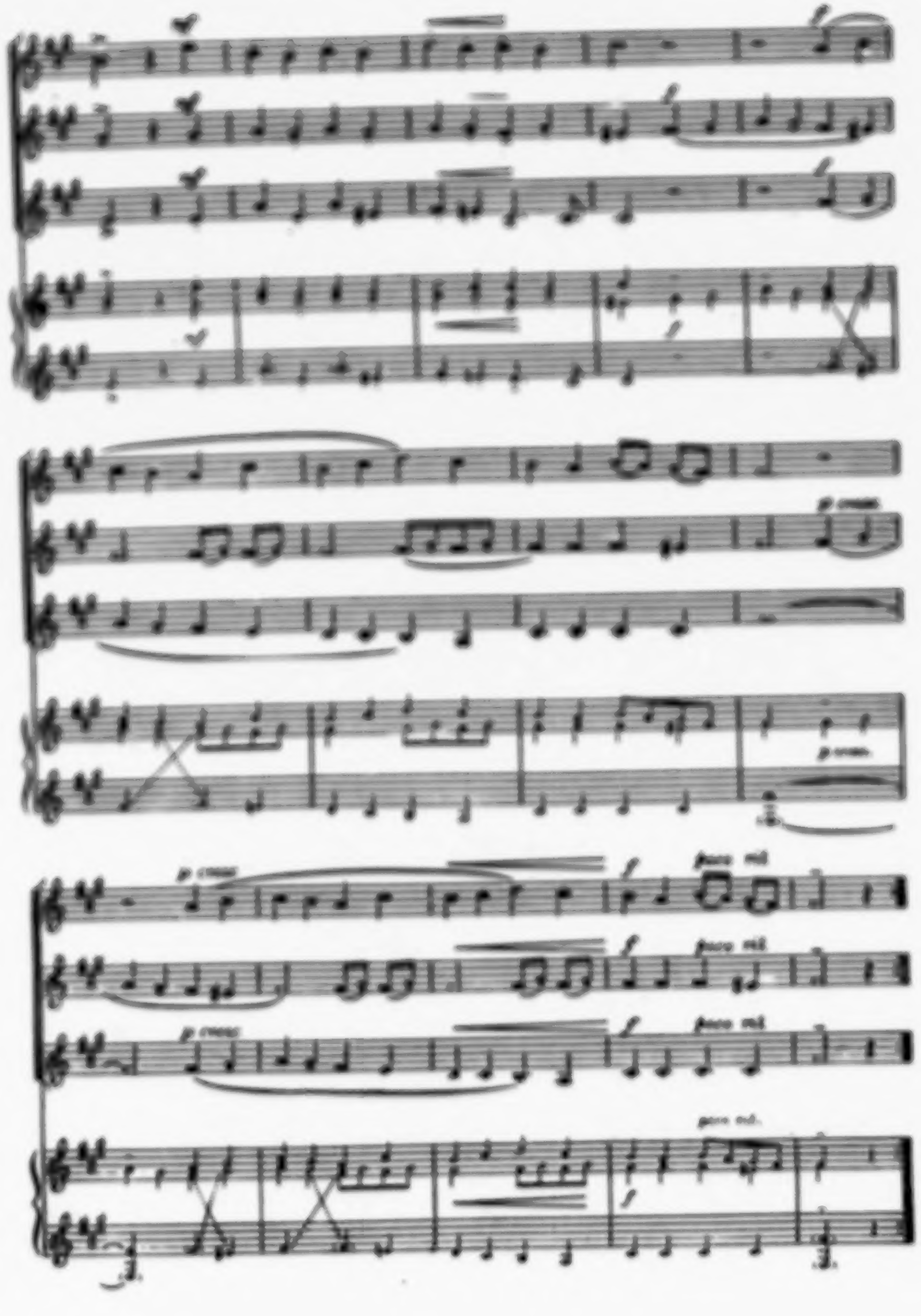
CHORALE - PRELUDE

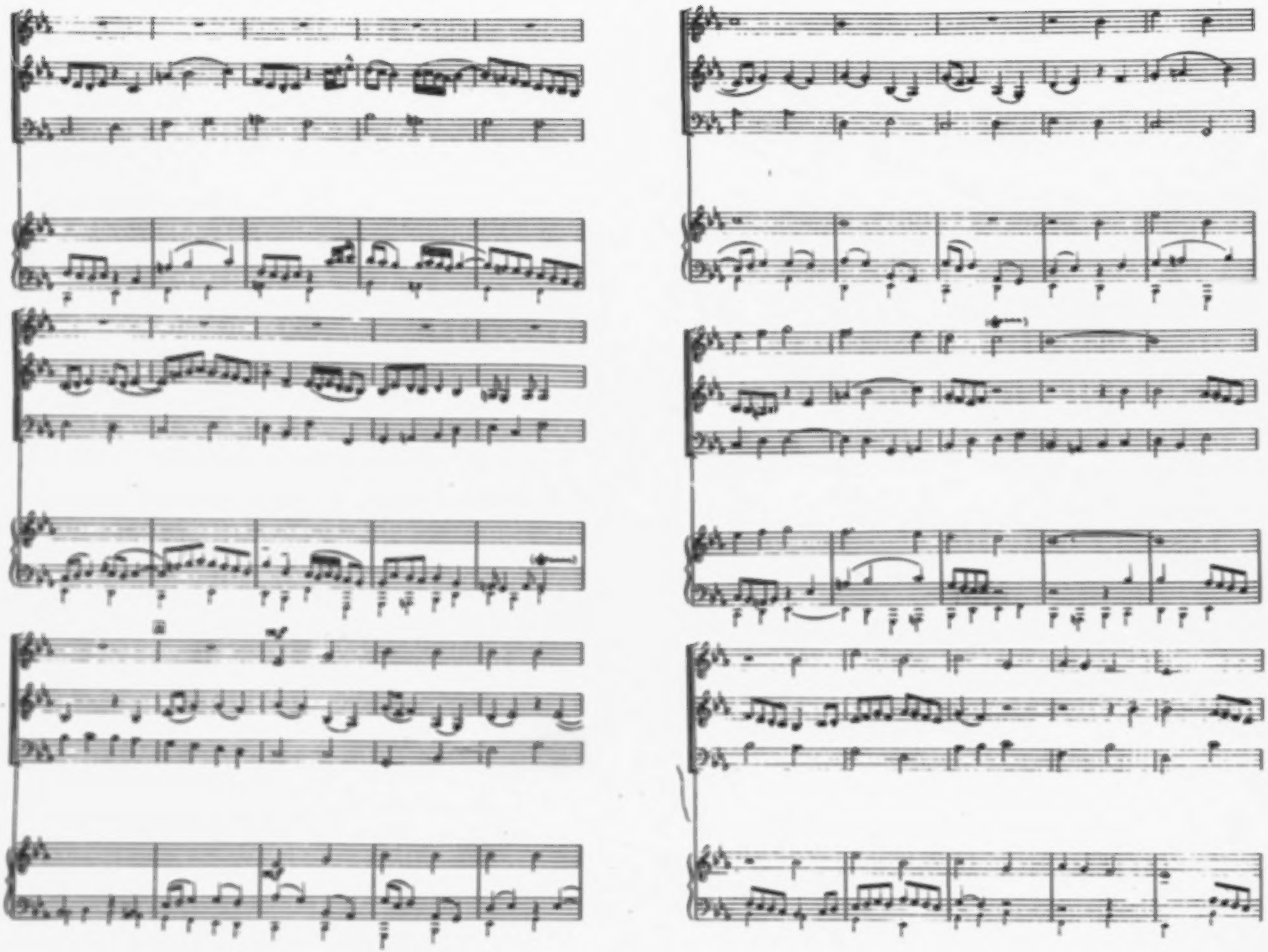
On "Sleepers Wake"

J. S. BACH

Medium tempo (♩=88)

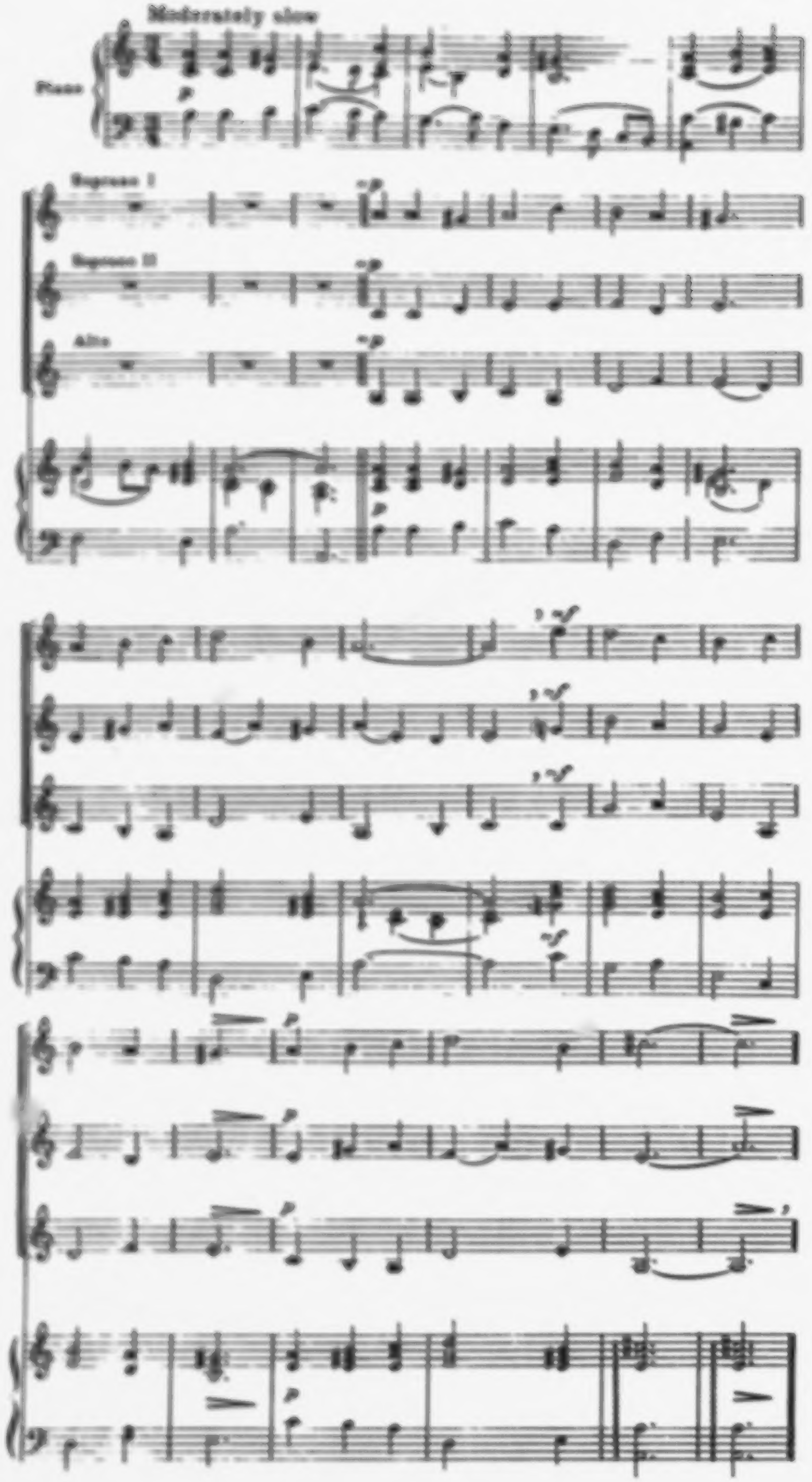






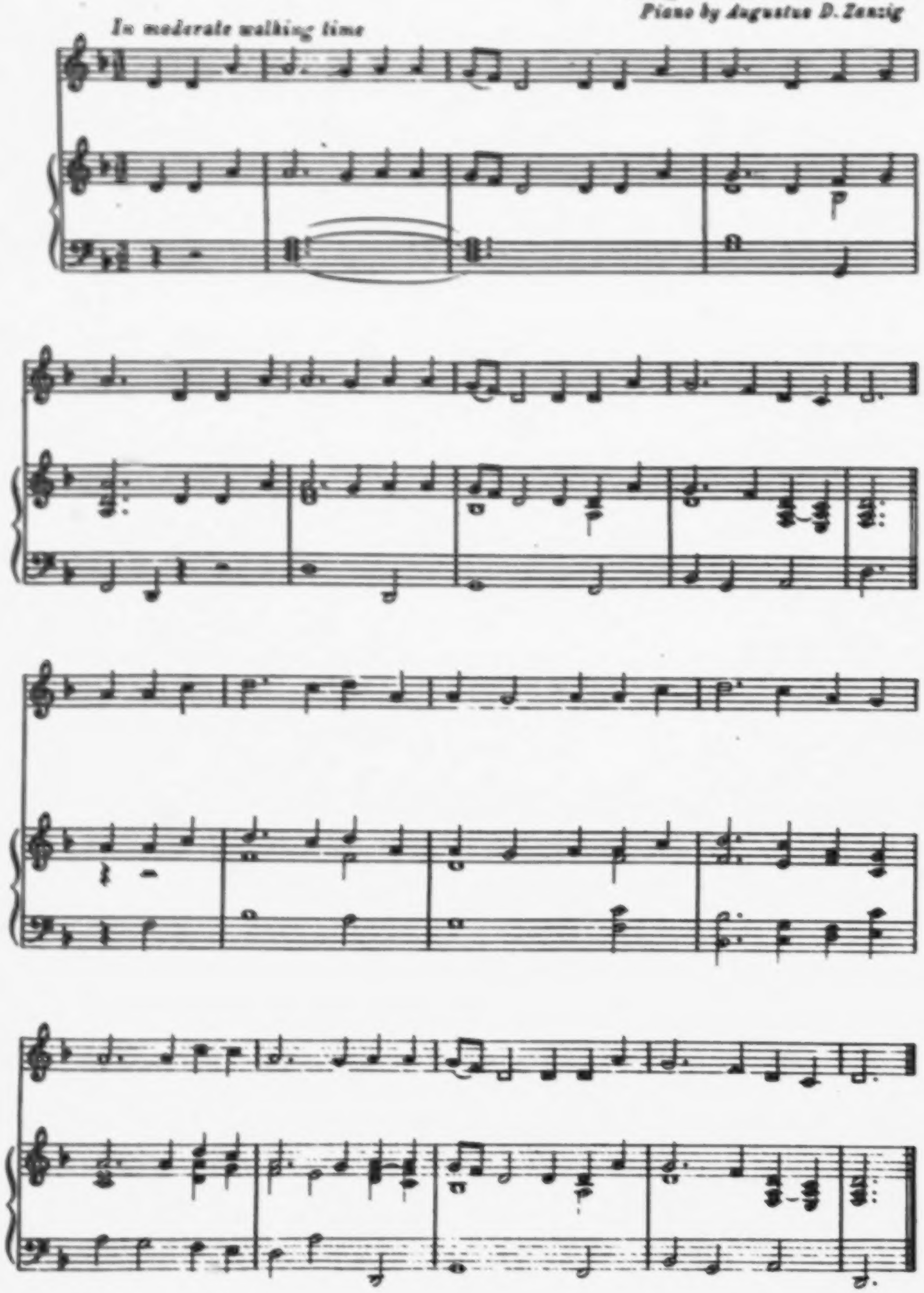
Coventry Carol

English Carol



Wayfaring Stranger

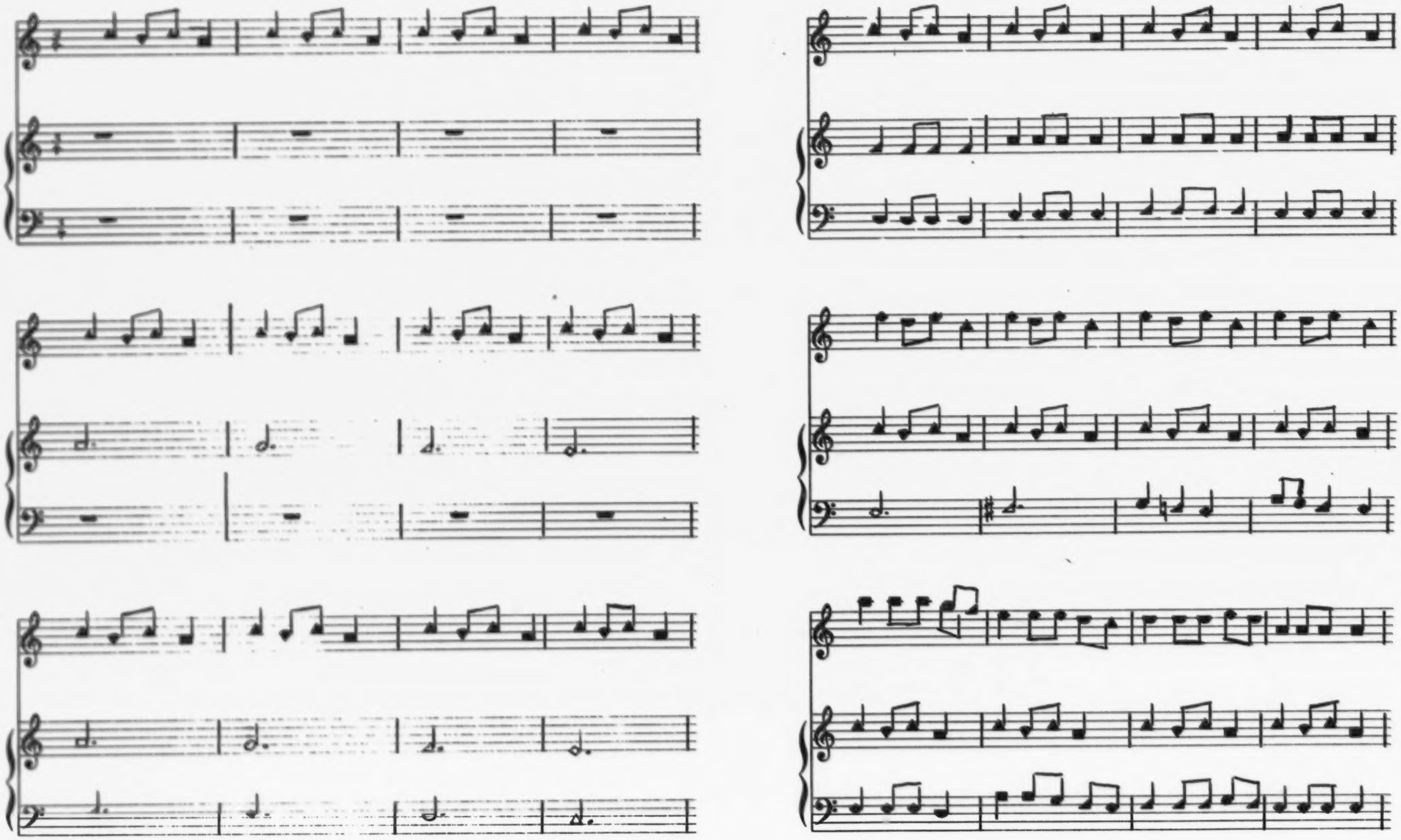
Religious folk-ballad, U. S. A.
Piano by Augustus D. Zanzig

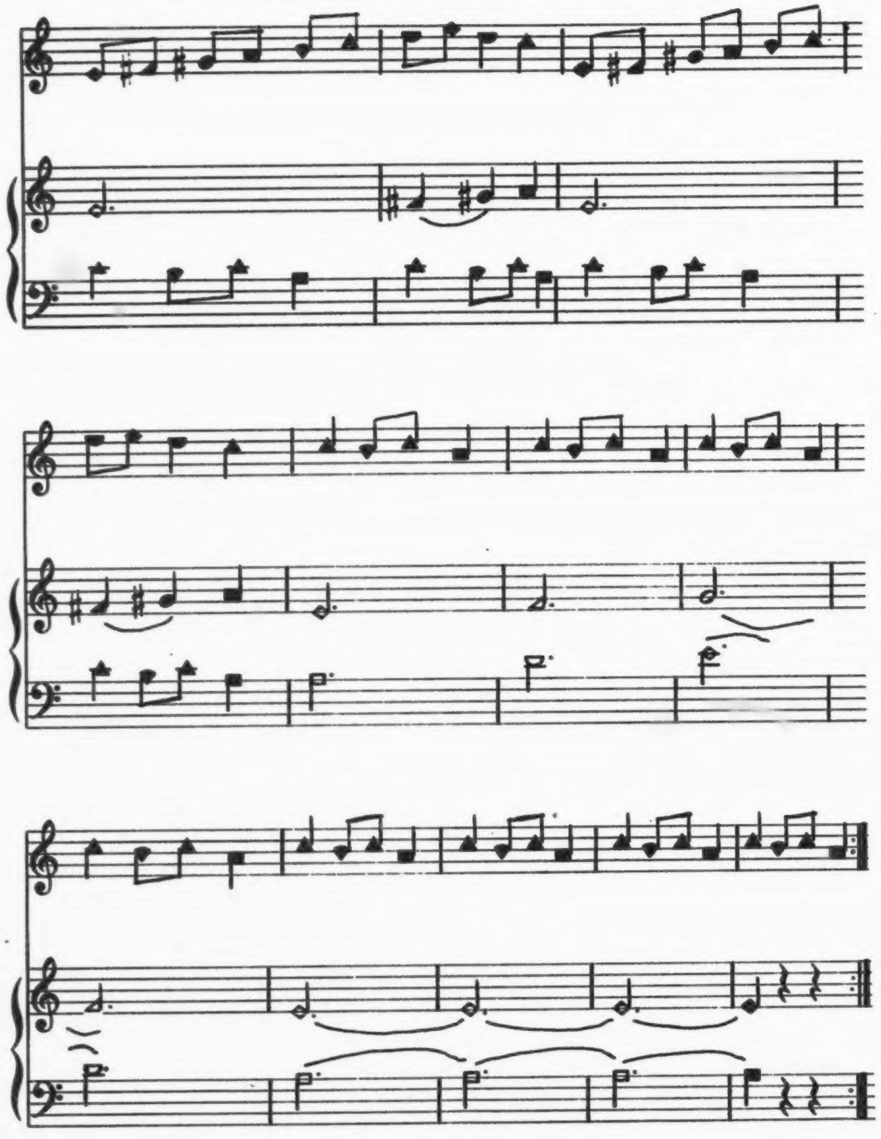


Carol of the Bells

UKRAINIAN CAROL

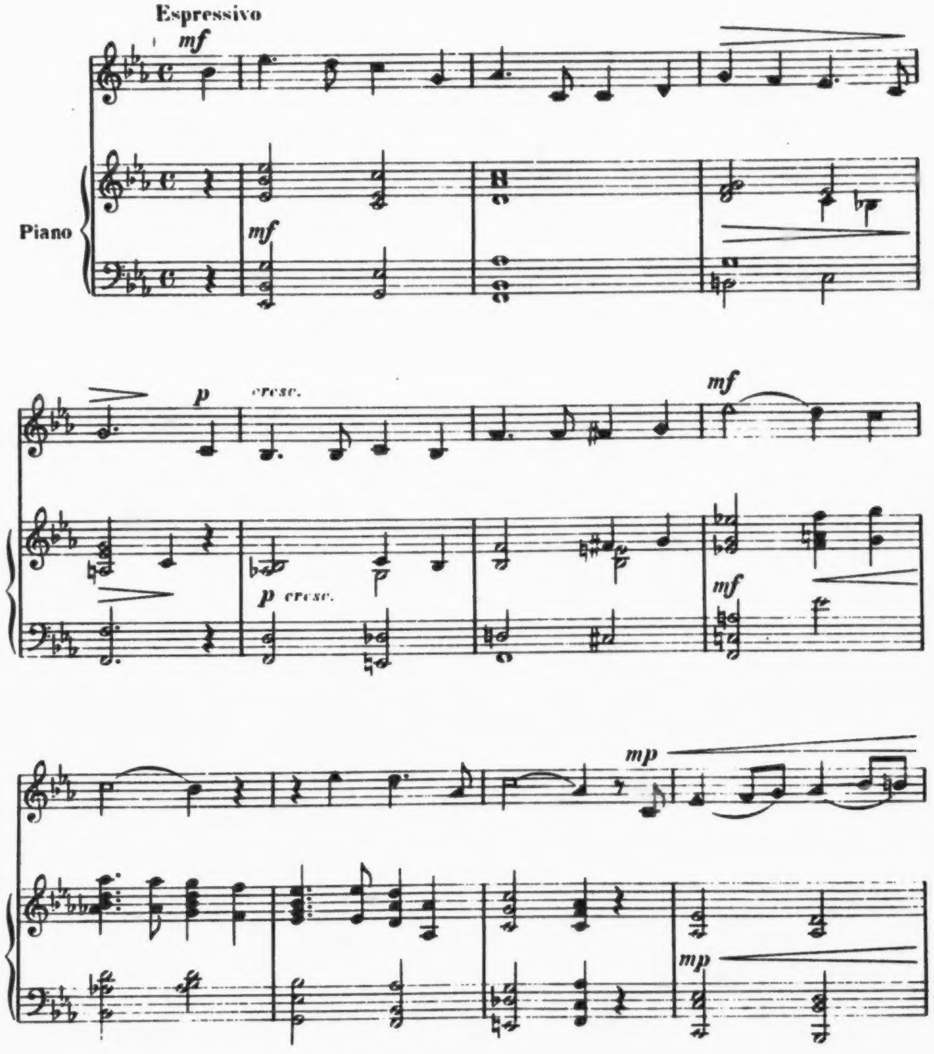
Music by
M. LEONTOVICH





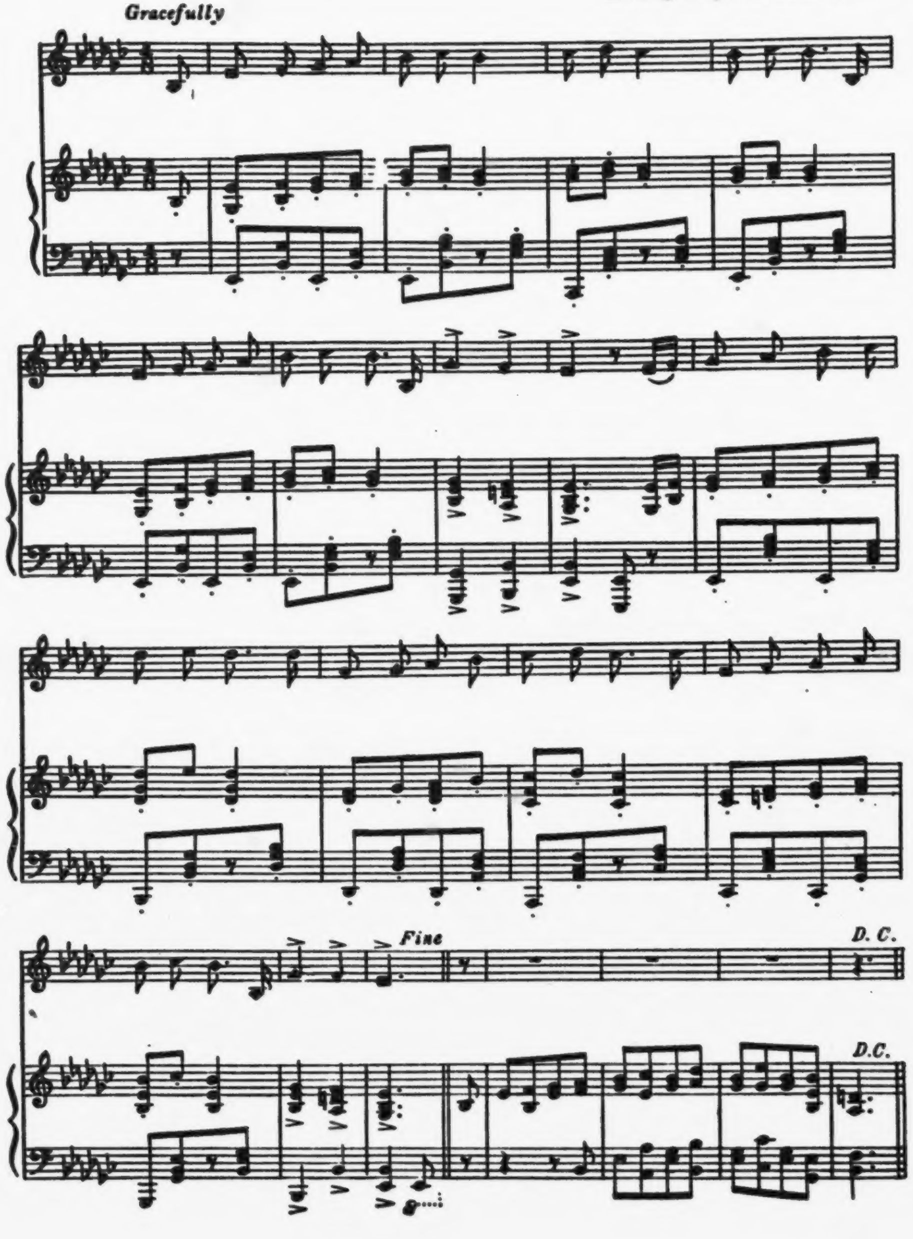
Thy Beaming Eyes

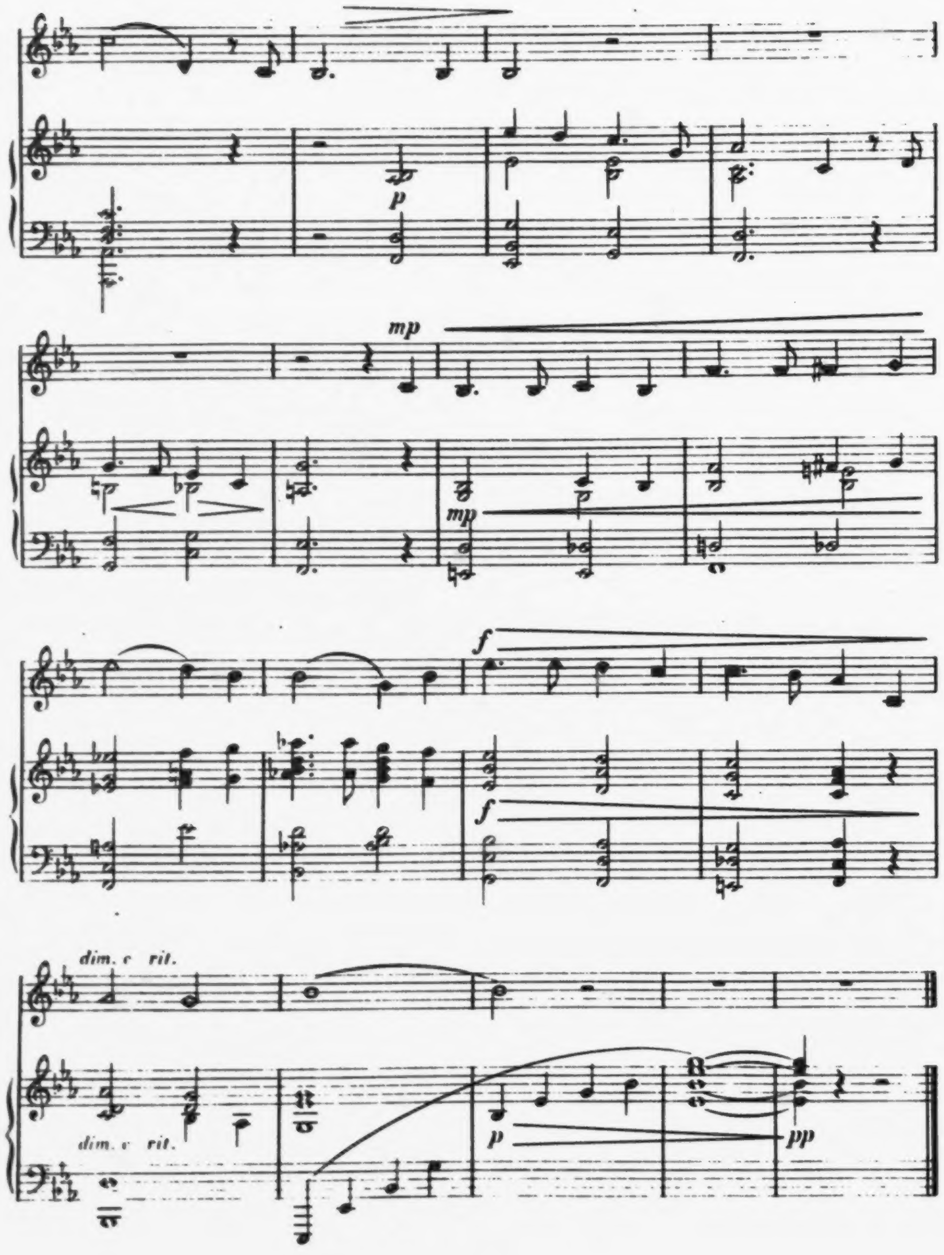
Edward Mac Dowell



The House in the Willows

Folk Song
Arranged by Johannes Brahms





Vergebliches Ständchen

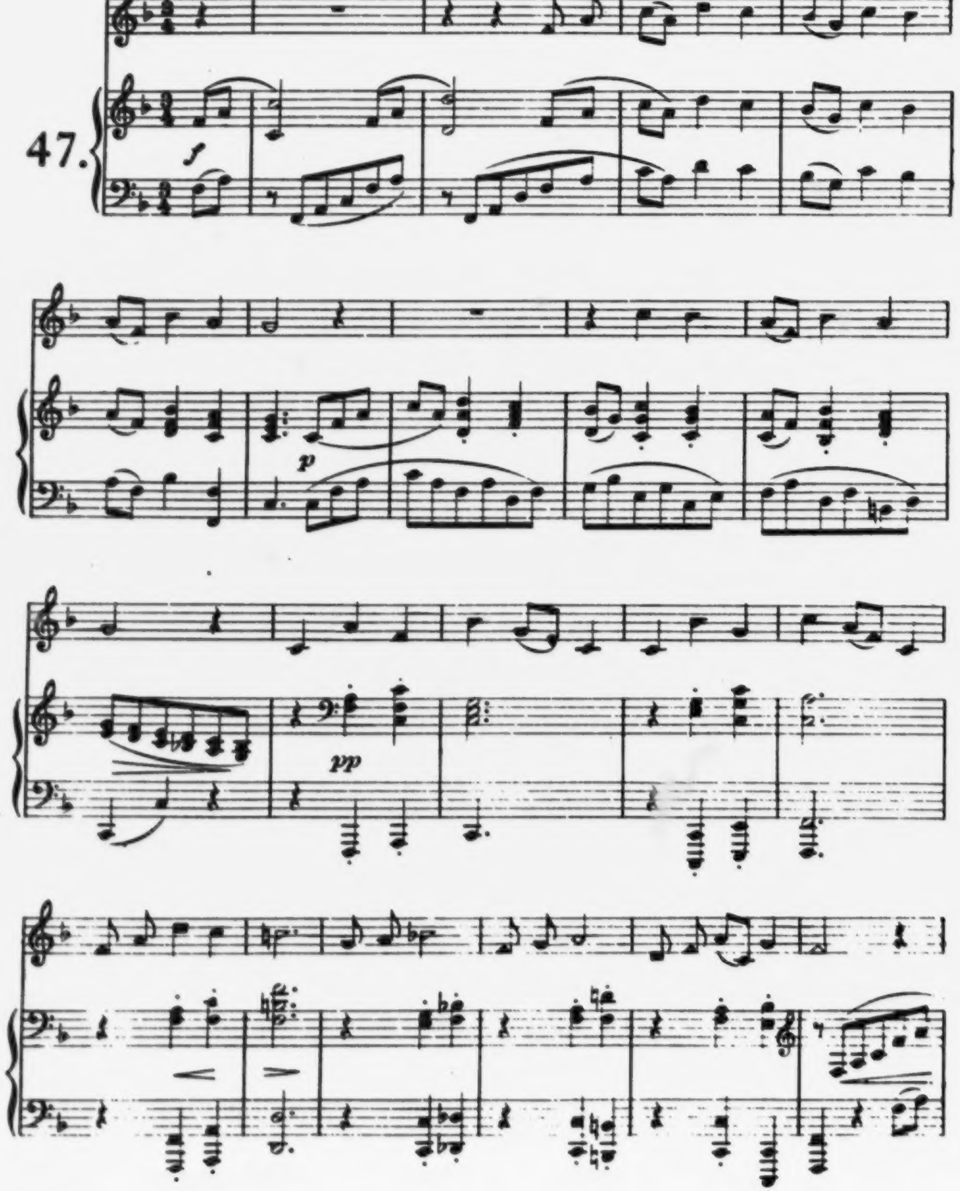
(from the Folklore of the Lower Rhineland)

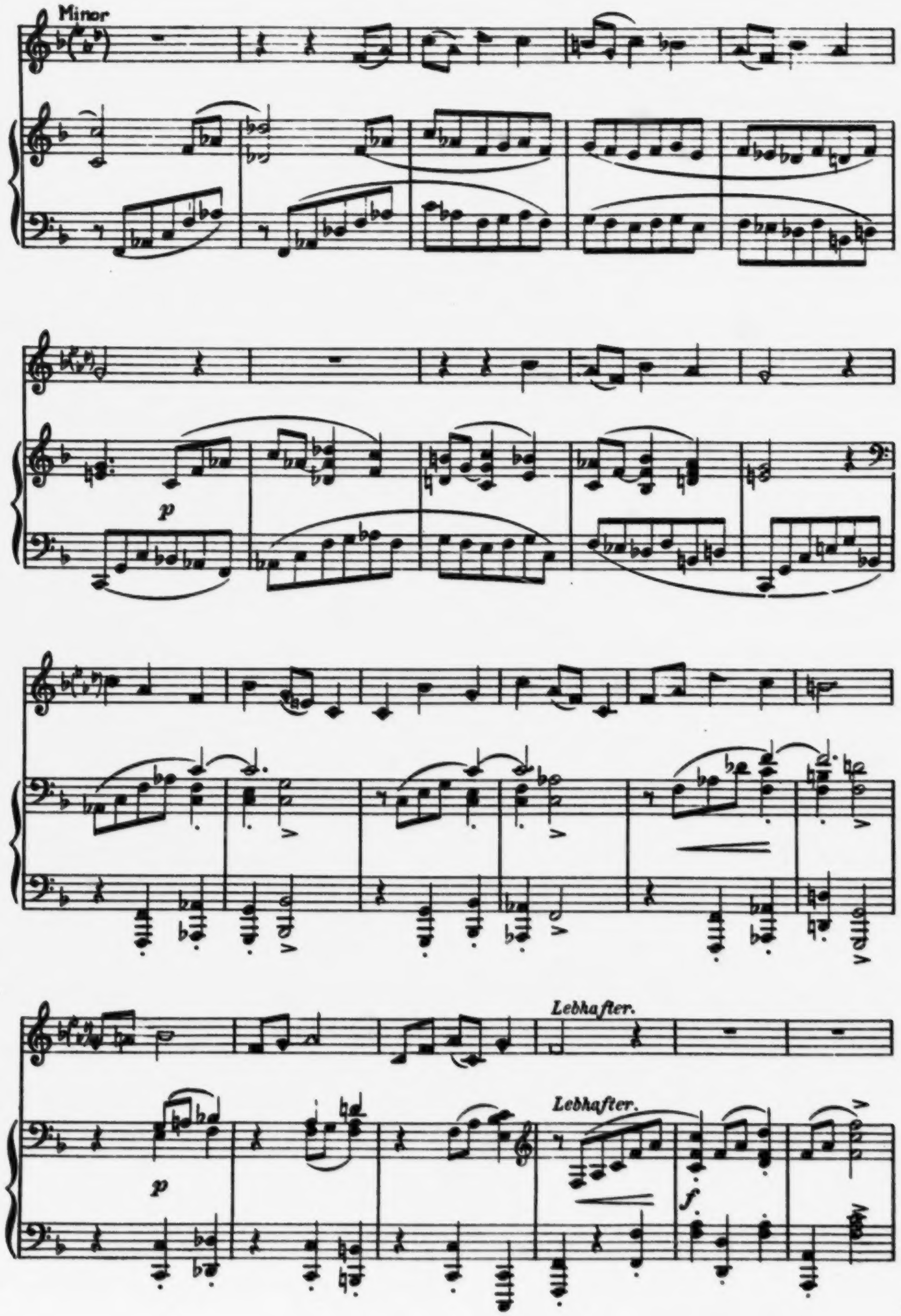
(Original key A major)

Lebhaft und gut gelaunt.

Op. 84, No. 4

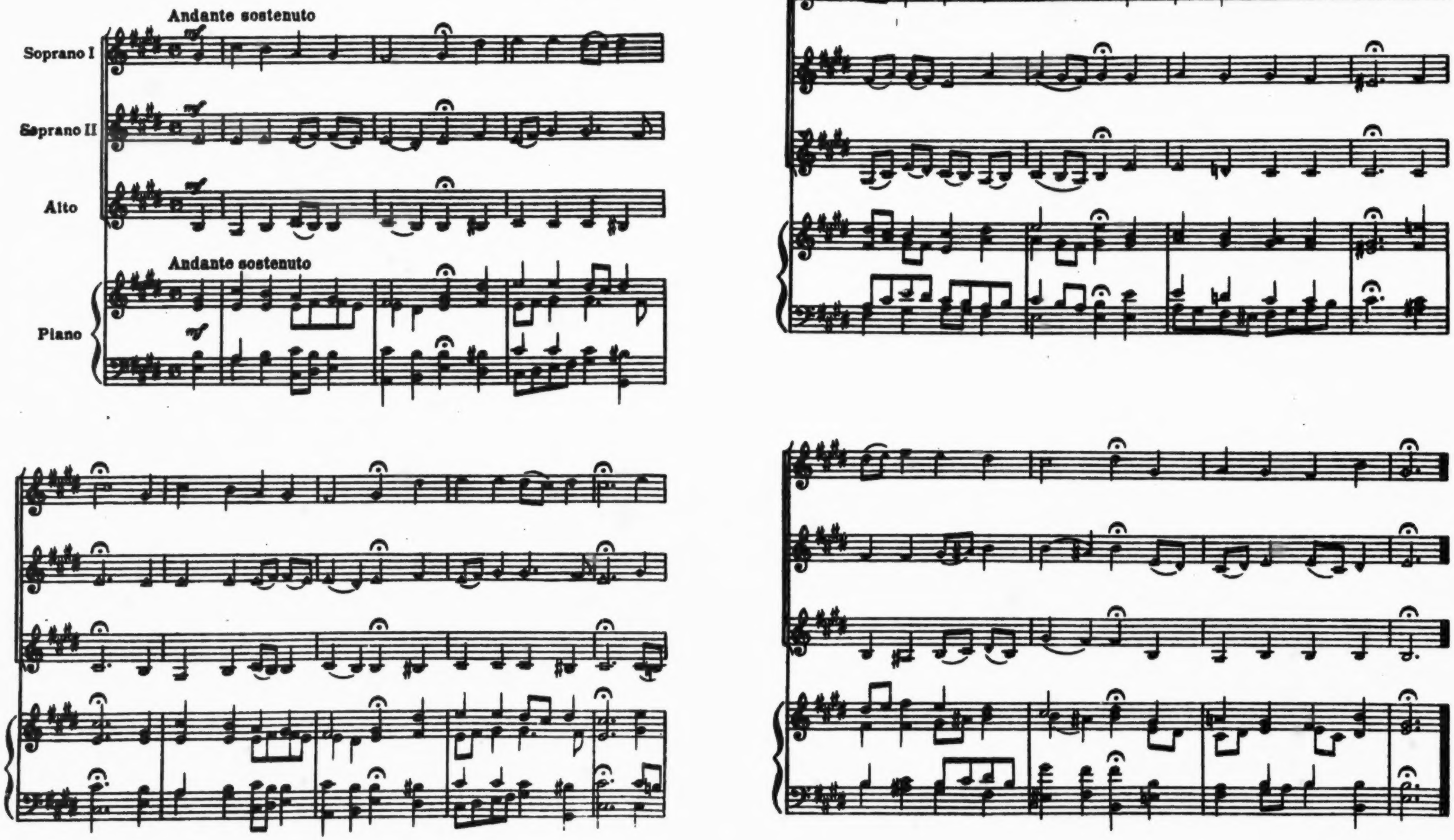
47.





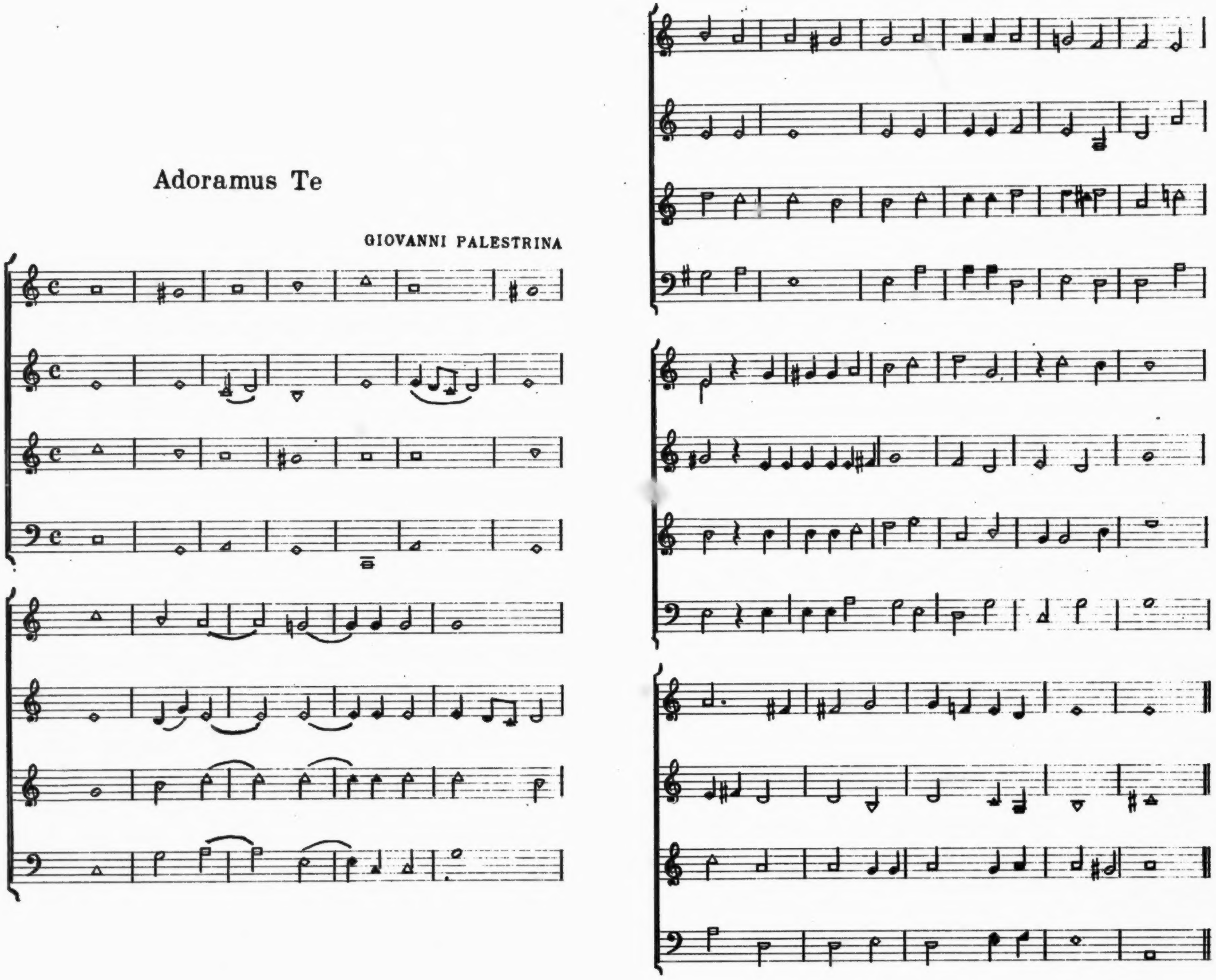
Chorale

JOH. SEB. BACH



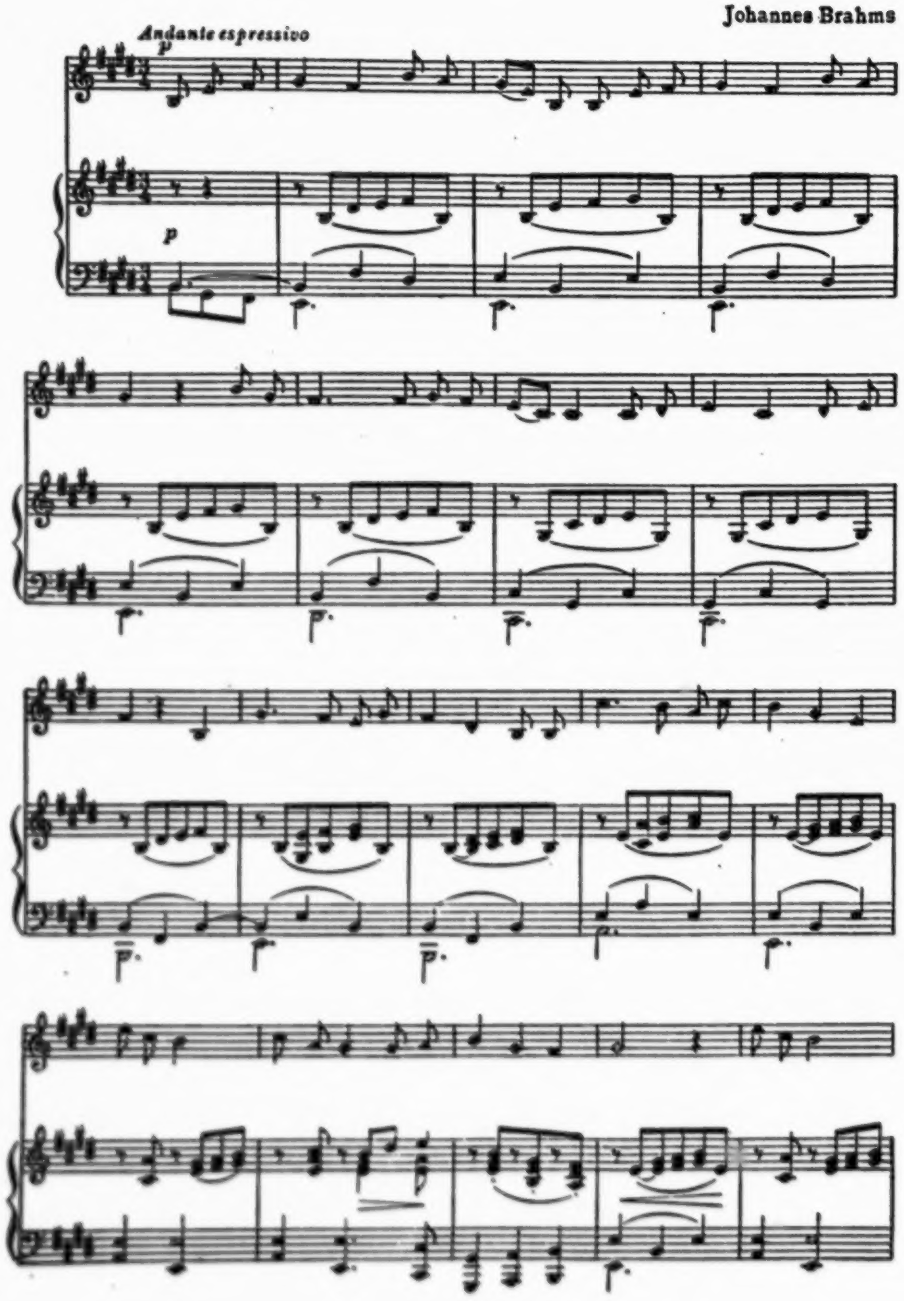
Adoramus Te

GIOVANNI PALESTRINA



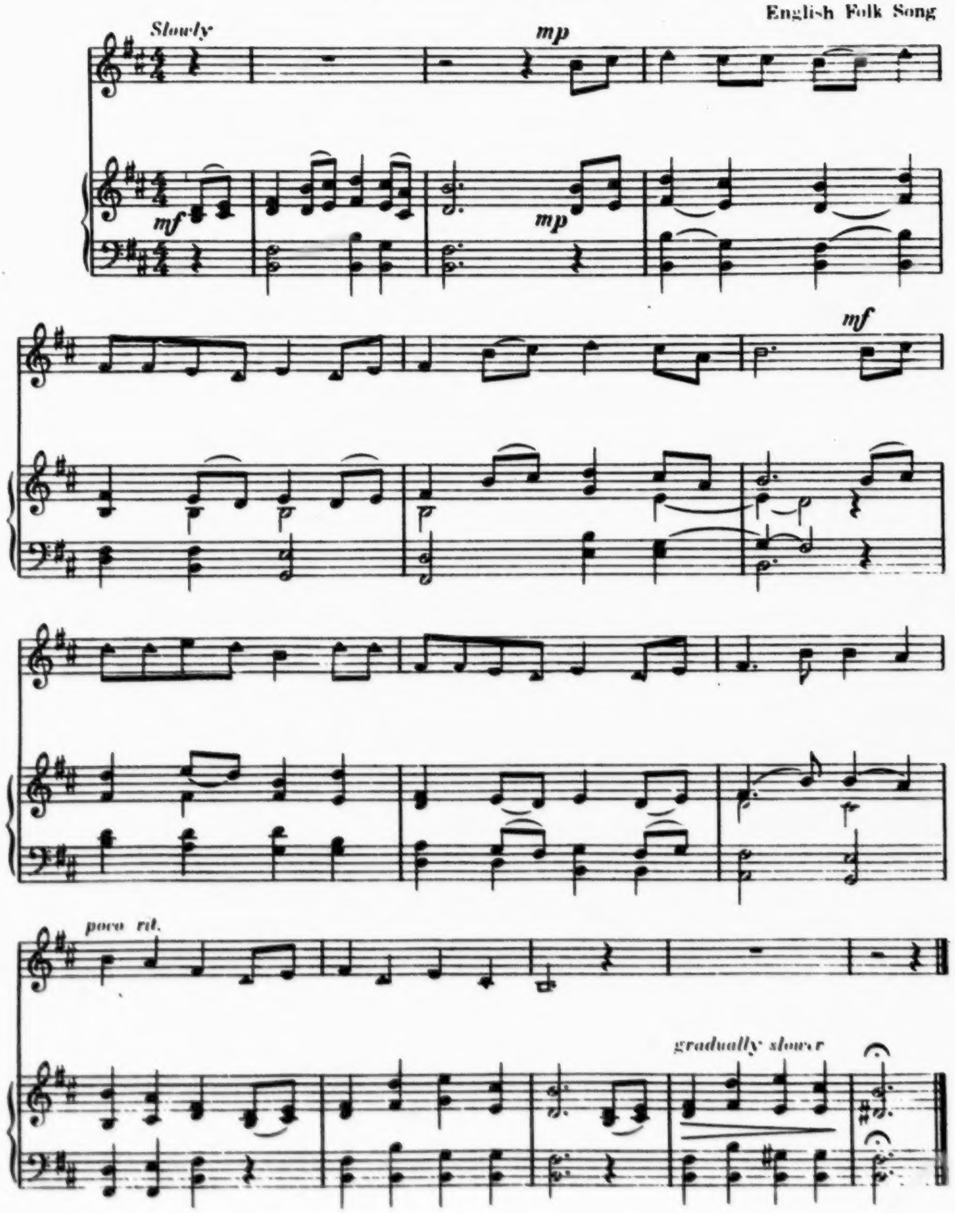
Sunday

Johannes Brahms



The Turtle Dove

English Folk Song



APPENDIX C

MUSIC AS A HUMANITY
GUIDED LISTENING LESSONS

MUSIC AS A HUMANITY

CLASS DESCRIPTION

MUSIC AS A HUMANITY is to be taught as a 7th grade General Music class. The subject matter is essentially Music History, but taught in its relation to art, literature, and the social milieu. Music will be discussed, played, and analyzed in terms of Rhythm, Melody, Harmony, Form, Timbre, and Style. These aspects of music will be related to art and literature, wherever possible, in an attempt to build concepts of listening and understanding which will be transferable to understanding and appreciation in those fields. All three areas will be placed in historical context.

OBJECTIVES

1. To develop demonstrable musical sensitivity.
2. To produce demonstrable learned skills in listening, seeing, and perceiving; these skills to show recognition of common elements, and their implications.
3. To develop demonstrable knowledge of the functions of music, the arts, and literature, and recognition of stylistic characteristics.
4. To teach children to perceive and begin to understand the relationships between music, art, literature, and the social milieu, and to develop transferable concepts applicable to all.
5. To develop an interest in music, art, and literature, and a capacity for discernment and taste.
6. To give children a historical sense of "what we are," and "who we are" through a survey of man's expressions in music, literature, and the arts.

UNIT OUTLINE

I. WHAT IS MUSIC?

Exposition, discussion, relating music to art, architecture, literature, social milieu. Breakdown of music to basic elements: rhythm, melody, harmony, timbre, form. (three weeks)

II. WHAT IS STYLE?

Develop concept of meaning of "style"...develop historical picture of styles: Non-western, Ancient, Medieval, Renaissance, Baroque, Rococo, Classical, Romantic, Impressionist and Expressionist, 20th Century. (three weeks)

III. RELIGION: CEREMONY AND RITUAL

Pre-Medieval sources of religious music, Jewish, Byzantine, Ambrosian, Gregorian Chant; Motet, Mass, Protestant Chorale; Cantata and Oratorio. (two weeks)

IV. DANCE

Early Dances and Instruments, Minstrelsy, Renaissance Dances, Baroque Dance Suites; Ballroom Dances, Ballet; Modern Social Dances. (one week)

V. ABSTRACTION; SECULARIZATION

Instruments of the Baroque and Classical Periods, Contrapuntal Forms, Sonata da Chiesa, Sonata da Camera, Concerto, Classical Symphony, subsequent forms of abstract music. (three weeks)

VI. PROGRAMMATIC ART

Tone Poem, Opera, Operetta, Musical Comedy, Troubadour Song, Madrigal, Art Song, Secular Cantata. (two weeks)

VII. FOLK ART

Non-Western; Western; Jazz. (two weeks)

VIII. EXPERIMENTATION

Impressionism, Expressionism, Symbolism, Surrealism, Dodecaphonic Music, Electronic, Aleatoric, Musique Concrete.

COURSE PLAN

Week 1. Unit I--WHAT IS MUSIC?

1 Organization Day
2 Sensitivity Test
3 Tape 1--WHAT IS MUSIC?
4 Data Sheet 1--Distribute, discuss, and explain
5 Discussion of five elements of music

Week 2. Unit I continued

1 Tape 2--RHYTHM, MOTION
2 Discussion: correlation with art and literature
3 RHYTHM: Bernstein Tape
4 Tape 3--MELODY AND HARMONY
5 Discussion: correlation of melody and harmony with art and literature

Week 3. Unit I continued

1 Review of Data Sheet, Discussion, etc.
2 Tape 4--TIMBRE AND FORM
3 Discussion: correlation of timbre with art and literature

4 Discussion: correlation of form with art and literature
5 QUIZ: Data Sheet and material of Unit I

Week 4. Unit II--WHAT IS STYLE?

1 Tape 5--WHAT IS STYLE?
2 Data Sheet 2--Distribute, discuss and explain
3 Film: GREECE AND ROME
4 Discussion: Ancient classical style
5 Correlations

Week 5. Unit III--THE SACRED, CEREMONY AND POMP

1 Film: MEDIEVAL LIFE
2 Discussion: Romanesque and Gothic milieu and style
3 Film: THE RENAISSANCE
4 Correlations
5 Tape 6--RENAISSANCE AND BAROQUE STYLE IN MUSIC

Week 6. Unit III continued

1 Correlations, Renaissance and Baroque art and literature
2 Tape 7--CLASSICAL AND ROMANTIC STYLES
3 Correlations with art and literature
4 Tape 8--20TH CENTURY STYLES IN MUSIC - QUO VADIS?
5 QUIZ: Data Sheet and Unit II material

Week 7. Unit III continued

1 Data Sheet 3--Distribute, discuss and explain
2 Tape 9--RELIGION AND CEREMONY
3 Discussion: Origins of sacred music through the Romanesque
4 Correlations in art
5 Tape 10--MEDIEVAL MUSIC

Week 8. Unit III continued

1 Art correlations, Gothic
2 Tape 11--MUSIC OF THE RENAISSANCE, REFORMATION AND COUNTER-REFORMATION
3 Correlations of art with Tape 11
4 Lecture: Stratification of above during late Renaissance
5 Tape 12--MORE OR LESS FINAL DEVELOPMENTS IN SACRED MUSIC
QUIZ

Week 9. Unit IV--THE DANCE

1 Data Sheet 4--Distribute, discuss and explain
2 Tape 13--MUSIC FOR DANCING
3 Correlations
4 Supplemental listening, recordings
5 QUIZ: Data Sheet and material of Unit IV

Week 10. Unit V--TREND TOWARD ABSTRACTION

1 Data Sheet 5--Distribute, discuss and explain
2 Tape 14--INSTRUMENTAL FORMS IN THE BAROQUE
3 Lecture: Development of instruments in the Baroque
4 Correlation of music and art of the Baroque
5 Lecture: Rococo and Pre-Classical Music

Week 11. Unit V continued

1 Tape 15--CLASSICISM AND SONATA FORM
2 Bell Telephone Film: SONATA FORM
3 Lecture: Modern instruments
4 Tape 16--REVOLUTION AND ROMANTICISM
5 Correlations with art

Week 12. Unit V continued

1 Correlations with literature
2 Lecture: 20th Century abstract music
3 Tape 17--20TH CENTURY ABSTRACT MUSIC
4 Correlations with art and literature
5 QUIZ: Data Sheet and material of Unit V

Week 13. Unit VI--MUSIC TELLS A STORY (Programmatic)

1 Data Sheet 6--Distribute, discuss and explain
2 Tape 18--PROGRAM MUSIC IN THE CONCERT HALL
3 Correlations in art
4 Correlations in literature
5 Lecture: Developments in opera, oratorio, ballet, drama

Week 14. Unit VI continued

1 Tape 19--DRAMMA PER MUSICA
2 Correlations in art
3 Correlations in literature
4 Discussion of above regarding motion pictures and television
5 QUIZ: Data Sheet 6 and material of Unit VI

Week 15. Unit VII--FOLK ART AND JAZZ

1 Data Sheet 7--Distribute, discuss and explain
2 Tape 20--FOLK MUSIC
3 Supplemental recordings: Oriental and African music
4 Supplemental recordings: European and American folk music
5 Correlations with art

Week 16. Unit VII continued

1 Tape 21--WHAT ABOUT ALL THIS JAZZ?
2 Discussion: Jazz and its relationship to the Concert Hall
3 Correlations: Pop Art and Op Art
4 Discussion: Where is Jazz going?
5 QUIZ: Data Sheet 7 and material of Unit VII

Week 17. Unit VIII--EXPERIMENTATION

1 Data Sheet 8--Distribute, discuss and explain
2 Tape 22--IMPRESSIONISM AND EXPRESSIONISM
3 Correlations in art
4 Correlations in literature
5 Tape 23--SERIAL MUSIC

Week 18. Unit VIII continued

1 Correlation of Serial Music with art and literature
2 Tape 24--MUSIQUE CONCRETE AND ELECTRONIC MUSIC
3 QUIZ: Data Sheet 8 and material of Unit VIII
4 Sensitivity Test
5 Sensitivity Test (makeup, etc.)

WHAT IS MUSIC?

MOTHER'S LITTLE HELPER -- 2:50

We have heard, as many of you know, the "Rolling Stones" singing "Mother's Little Helper." Our course is called "Music as a Humanity," which means that we are going to consider music as one of man's cultural expressions. It is an activity peculiar to humanity, as are literature, art, and the organizations of society. Our job is to consider how man has expressed himself through these "humanities," to learn to recognize what they are all about, and to try to understand why men use them. You may wonder what "Mother's Little Helper" has to do with "Music as a Humanity." When this tape was made, that tune was one of the top tens; by now it may be clear out. But it, like much else you will hear, contains all the basic ingredients of music.

I am going to play some other short pieces for you, each very different from "Mother's Little Helper," and each very different from the other; however, each piece also contains the same basic ingredients of music. As you hear them, try to figure out what are those basic elements of music which are common to all music.

TOCCATA IN D MINOR, J.S. Bach (1685-1750) -- 2:55

That was the Toccata in D minor, written during the early 18th Century by Johann Sebastian Bach for the organ. We heard it in a transcription for modern symphony orchestra by Leopold Stokowski. Now, it didn't sound much like "Mother's Little Helper," did it? Still, it contained the same basic ingredients. Listen now to the minuet from Joseph Haydn's "London Symphony," written about 1800. It also has the five basic elements which all music is made from.

MENUET: LONDON SYMPHONY, Joseph Haydn (1732-1809) -- 1:48

This was a different kind of music, very neatly organized, clear, regular, orderly. It was music which we call "classical." While the five elements were the same, the style was different, just as the style is different between a Model T Ford and an Aston-Martin, even though the elements of both cars are the same. It is the differences in style which make it possible for us to recognize music and art from one period or another, and the style also tells us a great deal about the nature of the people during the time the music and art was created. Now, let's jump from the early 1800's to the early 1900's, and hear an English brass band, playing a famous march. This was written by John Philip Sousa, conductor of the U.S. Marine Band. The march's name? "The Stars and Stripes Forever."

STARS AND STRIPES FOREVER, John Philip Sousa (1854-1932) -- 2:26

Although the "Stars and Stripes Forever" was written a hundred years later than the Haydn Menuet, the march was played by a brass band while the Menuet was played by an orchestra, still the basic elements of these two pieces of music are very similar, so that in many ways a march and a minuet are first cousins.

By now you should have just about figured out what the basic elements of music are. You know that there is no music which can exist without rhythm; in fact, rhythm is probably the most basic of all the elements. We can have music without some of the others, but without rhythm, all we can have would be sound; so the very first element of music is rhythm. Probably the next most important is timbre: t-i-m-b-r-e; it looks like "timber," but rhymes with "amber." Timbre means "the kind of sound."

Then we have melody, and we know from music history that melody developed long before the last two ingredients which are: harmony and form. Harmony is the result of the sounding of two or more pitches at the same time. The music of the western world has developed this to a high degree, but the Oriental music does not use it much, as you will hear later. Form is the last of the principle elements of music. It is the organization of the musical ideas, as in a march, a folksong, a rock and roll tune, or a symphony.

So, these five basic elements of music are: rhythm, timbre, melody, harmony, and form. Throughout the course we will consider them in many ways, as they are used in music and as they are used in the other "humanities": poetry, literature, and art.

Now let's listen to a short section of an opera written about 1918 by the Italian composer, Giacomo Puccini. The opera is called "Gianni Schicchi," after its hero, an Italian lawyer. In the ensemble we will hear, Gianni Schicchi is helping the relatives of an old Italian merchant to break his will--all the relatives are hoping to get some of his property. Gianni leads them on to show how greedy they are; in the end he cheats them all, arranges to have everything left to himself, then gives it all to his neighbor who marries the old man's nephew. Listen now to how Puccini uses rhythm, timbre, melody, harmony, and form--notice how much more complex it is than the minuet and march you have just heard.

GIANNI SCHICCHI, Giacomo Puccini (1858-1924) -- 3:12

If you remember, the Bach "Toccata" which you heard was rather free and complex, somewhat in the manner of the ensemble from "Gianni Schicchi." "Mother's Little Helper," on the other hand, even though it is a modern piece of music, is organized in rather strict order, with a series of verses which follow nearly the same patterns. This aspect of music is form, the organization of music. The rhythms of "Mother's Little Helper" were steady 4-beat rhythms; "Stars and Stripes Forever" used 2-beat patterns. In "Gianni Schicchi," the rhythms changed frequently, and the music seemed to speed up in places, and to slow down in others. Melody was very clear in all of these pieces except perhaps in the "Toccata," which had much melody, but it was a very complex one. Timbre was very different in all the pieces--"Mother's Little Helper" used a quartet playing and singing with a rock and roll sound, while the Bach "Toccata" used a modern symphony orchestra. The Haydn "Minuet" used a small orchestra with a predominantly string sound. The march used the sound of a brass band, and "Gianni Schicchi" combined symphony orchestra sound with operatic singers who changed the sound of their voices to suit the meanings of the dramatic situation.

Now we will hear a much more complex work. This is the opening of the "Rite of Spring" by the great Russian-American composer, Igor Stravinsky. He wrote it in 1913, and nearly caused a musical revolution. In it you will hear a full symphony orchestra using timbres Haydn couldn't have imagined; the rhythms are very complex though they sound primitive; melodies are short, rather strange, and the harmonies and forms are completely new and different.

THE RITE OF SPRING, Igor Stravinsky (1882--) -- 3:30

Since "The Rite of Spring," musicians have become more and more interested in irregular rhythms and in new and different timbres or sounds. They have found many new and different sounds in the conventional instruments, and they have developed new instruments, such as electronic sound generators, taped music, and the electrical instruments such as the electric organ and guitar. Percussion instruments have been used much more because percussion instruments are mainly rhythmic, rather than melodic.

Listen to this short section from "The Hammer Without a Master" by the modern French composer, Pierre Boulez. This was written about 1954 and is a good example of one type of modern sound--compare the use of rhythm, timbre, melody, harmony, and form to such pieces as "Mother's Little Helper," the Haydn "Minuet" and the other pieces we have played.

LE MARTEAU SANS MAITRE, Pierre Boulez (1925--) -- 1:18

Charles Burney, the first great music critic, wrote in the late 18th century, "I can very readily forgive the man who admires a different music from that which pleases me, provided he does not extend his hatred or contempt of my favorite music to myself, and imagine that on the exclusive admiration of any one style of music, and a close adherence to it, all wisdom, taste, and virtue depend." And he was right--it does take all kinds, and we can learn to enjoy many types of music and art. People say, "I don't know much about it, but I know what I like." They really mean, "I like what I know." We will try to know more, so that we can like more.

Now, to close, listen to "The Jamaican Jump-Up," and see once again how it is built of rhythm, timbre, melody, harmony, and form. Try to think how each of these elements is being used.

JAMAICAN JUMP-UP -- 2:04

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RHYTHM

SALTARELLO, "ITALIAN SYMPHONY," Mendelssohn (1809-1847) -- 2:15

In our first session we examined several different kinds of music and attempted to find answers to the question, "What is music?" You will recall that we were able to show that it is one of man's unique creations through which he expresses himself, and that its principle elements were: rhythm, timbre, melody, harmony, form, and style.

Today we are going to consider rhythm, the first and probably the most important of all the musical elements. Now then, what is rhythm? Listen--you can hear it in the ticking of a watch (record watch). You usually walk in rhythm, and you certainly dance in rhythm, if you dance at all. Your heart beats in a steady rhythm, and you breathe the same way--a steady 1-2, 1-2, 1-2 pattern--sometimes faster, sometimes slower, but steady. The ocean's waves pound the beaches in a steady rhythmic beat, and we have a slow steady rhythm to day and night, the seasons, and the years. So, we are surrounded by this rhythmical 1-2, 1-2, always moving. Rhythm is motion: in music, in art, in dance, in life.

The piece of music you have just heard is the "Saltarello," an Italian dance, from Mendelssohn's "Italian Symphony," and it obeyed the "Law of 2-ness." Although the composer had intended it to sound in fast patterns of 12, it came out as a series of 6's, in two accent groups. The great majority of music you hear is subject to this pattern of "2-ness"--many times in 4's, which are simply double 2's, in 6's, which are two 3's, etc. "Twoness" is apparently one of the most basic facts of our lives.

Listen now to a piece from "The Royal Fireworks Music," written by George Frederic Handel in about 1749. He intended it to be in a 2-beat pattern, but try to beat time to it and you will find the easiest beat will still obey the law of 2-ness.

PASTORALE, ROYAL FIREWORKS MUSIC, Handel (1685-1759) -- 0:33

While this "law of 2-ness" seems to operate throughout music, many of you will object that there is also a law of "3-ness." After all, we heard a minuet last time--that was a 3-beat rhythm. Yes, it's true, we also have rhythms based on 3's, but even they usually fit the pattern of 2-ness within the phrase patterns, just as the "Pastorale" you just heard did--it was built of threes, but they combined into larger groups of two's; waltzes, minuets, and all other 3-beat pieces tend to do the same. This was true of music from about the year 1600 to 1900--before 1600, things were different and since 1900 they have been changing, as you will hear.

Much of the music before 1600 was not subject to our "law of 2-ness." It was rhythmical, but it followed the patterns of the Latin prose language of the Church. It was not poetically rhymed language, but combined accents of 2's and 3's in such a way that it does not seem to "come out even."

The music of the Medieval Catholic Church was known as Gregorian Chant. It was named after Pope Gregory, who in the 7th century ruled that chant was the proper music for the services of the Church. The priests and monks chanted it in a style we now call "plainsong," which means that the rhythm of the chant comes from the rhythm of the Latin prose of the Church--this was irregular and it joined 2's and 3's in a very subtle manner. Listen to the Introitus from the Mass, "In Dominica Resurrectionis," dating from sometime before the year 1000. Try to count out the rhythm as you listen; you'll see it's very uneven and hard to count.

INTROITUS FROM MASS -- 1:40

Almost all of the music of the Medieval and Renaissance periods was based on Gregorian Chant, even though it was not all religious, and even though many voices were added to it. Since it was based on the chant, it tended to use the uneven, or asymmetrical, rhythms of that time. However, we know that there was also dance music in the courts, and we have copies of some dance music from the 13th century. This was the time when the troubadours and travelling musicians known as minstrels provided various types of dances for the courts. Dances had to be symmetrical, or even rhythms, since people danced on two legs. Listen to this estampie--a troubadour dance of the 13th century. While it doesn't have any harmony, it is still strongly rhythmical, and it certainly obeys the "law of 2-ness."

ESTAMPIE--TROUBADOUR DANCE -- 1:05

Dancing was a popular pastime in the courts and also among the peasants. Gradually the court dances became more and more refined, and eventually some of them were written into music just to be listened to and not actually danced, although they could be danced. That was the case with the Haydn "Menuet" you heard on the last tape. The minuet itself was further refined, eventually becoming the waltz, a very popular dance in 3-beat time. By 1820 the waltz was the most important dance in Europe.

The great Russian composer, Peter Tchaikovsky, in his "Pathetique Symphony," did something a bit different with the waltz. What he did was to write a "sort-of" waltz that was based on a 5-beat pattern: 1-2-3-1-2-, 1-2-1-2-3; but even this obeyed the "law of 2-ness," because his 5-beat patterns combined into a series of groups of twos. Try to count with this piece as you hear it. This is the 5-beat waltz from Tchaikovsky's "Pathetique Symphony," written about 1893. Remember the pattern: 1-2-3-1-2, 1-2-1-2-3.

WALTZ, PATHETIQUE SYMPHONY, Tchaikovsky (1840-1893) -- 2:45

Of course, many dances--in fact, most of them--have kept the 2-beat, or double 2-beat pattern as their basic rhythm. All jazz is based either on a 2-beat or a 4-beat, and marches are always based on a 2-beat pattern. By the way, did you know that jazz developed from marches played from the tailgates of wagons being driven around the streets of New Orleans? That's why it was called "tailgate jazz." The musicians played the marches, but they "swung" them a little bit, and out came jazz--but we'll talk about that in more detail another time. Right now I want to show you what happens to a piece when the rhythm is changed. First I will play it for you as Johann Sebastian Bach wrote it in 1749. It is a fugue from his great work, "The Art of Fugue," and it has the imposing name, "Contrapunctus #9." Again, count out the rhythm as you listen.

CONTRAPUNCTUS #9, J.S. Bach -- 2:15

Now listen to what happens to this same piece, when it is sung by the Swingle Singers, a modern French group. They will be singing the same notes, not using any real words. The only change they make is that they are "swinging" the rhythm, and they have added a jazz drummer and bass player to help "make it swing." Count out the rhythm this time and try to see what is different.

FUGUE IN D MINOR, Swingle Singers -- 2:14

Well, I think you can agree that it's the same piece, but it's still very different! It's the rhythm, really, that made the difference, although the timbre, or sound, was also different since the original was played by strings, while the Swingles sang it. But you can hear that a change in the rhythm made a big change in the piece.

Now I think that you should hear one of the works of our modern time which uses asymmetrical, or uneven rhythms, as they were used before 1600. This won't sound like Gregorian chant because it's a piano concerto, but if you will try to beat out the rhythm, you'll find that it, like the Gregorian chant, doesn't "come out even." Composers in the early time of this century began objecting to having always symmetrical or "square" rhythms and phrases. They felt that there was great beauty in asymmetry, or unevenness. You remember Tchaikovsky's 5-beat waltz? Well, it was one of the earliest pieces of this type, but of course it did fall into "2-ness" within its phrase patterns. Count out the rhythm in this piano concerto, though, and you'll find that the composer has "repealed the law of 2-ness"! Every time you feel, "Ah, now I've got the beat," you find that he has left out a little bit, or added a beat, and you've lost the beat again! This kind of asymmetry is a strong rhythmic characteristic of the 20th century style--the use of asymmetrical, or uneven, rhythms. Listen now--try to tap out the beat. This is the beginning of the 1st Movement of Igor Stravinsky's Piano Concerto, written in 1924.

PIANO CONCERTO, 1st MOVEMENT, Igor Stravinsky -- 2:00

So, we've come back to the uneven rhythms. We've re-discovered them, but in much more complex, sophisticated ways. However, a great deal of today's music is still very symmetrical: all jazz, marches, most folk songs and quite a bit of the composed "art music," too.

Rhythm not only gives motion to music--it has a very strong effect on the emotions. You know that some music makes you excited, some makes you quiet and thoughtful, some makes you feel religious, and some makes you sad. Soldiers go off to war to the sound of music, and if you listen closely to television commercials and movie music, you'll hear that even in this the music is working to churn up your feelings. This is done in many ways, but the main way is by the use of rhythms and by the speed of the music. I want to try to show this in the last example today. We have two separate performances of the Negro gospel song, "Old Time Religion." The first time you hear it, it will be sung just like a hymn--almost the way Bach would have written it for his choir 250 years ago, except for one little jazzy "lick" between the 2nd and 3rd verses. Then, the second performance, by the same group, opens up and "swings it." They've changed the rhythm, speeded it up a bit, and while you can tell it's the same piece, you know it's really a brand new one. So listen to it now, and see whether the new rhythms don't really "make it move." Remember--rhythm is motion. Here it is: "That Old Time Religion."

THAT OLD TIME RELIGION (Two versions) -- 3:30

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MELODY AND HARMONY

TROUBADOUR SONG, Arnaut Daniel (12th century) -- 1:30

This was a love song written late in the 12th century by the troubadour, Arnaut Daniel. It resembles Gregorian chant since it has no harmony, very subtle, prose-like rhythms, and since it is sung. The main thing is that it is almost entirely melody--pure melody.

Remember the five elements of music--rhythm, melody, harmony, timbre, and form? Last time we considered rhythm; today we will take a look and a listen to see what has happened with melody and harmony. Melody is produced when we wound a series of notes in some logical order, arranged rhythmically. The notes are combined into short ideas, similar to words, the ideas are combined into larger groups, or phrases, and the phrases into groups which are similar to sentences. In this way, melody is made; but it must make some sense somehow.

As you heard, the troubadour song was a single melody. Music in the 12th century had advanced to the point where musicians were experimenting with combining sounds, but in the main melodies moved exactly parallel to each other. This was called organum, and it was considered very advanced in its day. It was the first harmony, or sounding together of two or more notes at the same time. As the composers grew more skilled, they became able to write music with three or four melodies going all at the same time, and in different directions. Guillaume Dufay was the most famous composer of the 15th century, and he wrote much music for the church (in fact, he was a priest); but he also wrote a great deal of non-religious, or secular, music. Listen to this little love song which he wrote. It uses singers, tenor recorder, viol, and lute. See how many melodies are going along at the same time and notice the harmonies that are produced by these melodies.

BON JOR, BON MOIS, Guillaume Dufay (1400-1474) -- 1:25

Melody and harmony did not sound the same when Dufay was writing in the 15th century as they sound today because the melodies were modal; they did not follow the scale we are used to--the diatonic major and minor. By the middle of the 16th century, however, melody was beginning to settle down into the diatonic scale patterns which we know so well. As melody became more diatonic, harmony followed, with the result that the music of that period sounds quite comfortable and familiar to us.

The anthropologists--people who study the development of humanity--tell us that undoubtedly melody grew as an exaggeration of speech. We have heard how Gregorian chant was simply a melodic exaggeration of the Latin text--singing words seems to project them out to greater distances; probably this was the reason why melody grew. Then we liked it and used it for its own sake.

In the days before signs and advertising were everywhere (not really so very long ago), people roamed the streets, selling goods and services; they developed little song-like melodies which people recognized. An example might be the butter and egg man who would go along the street, calling, "Butter and eggs"--you may have heard calls similar to this in markets or railway stations. The English madrigal composer, Orlando Gibbons, writing during the time of Queen Elizabeth, collected street cries just as he heard them in London. He wrote a number of them into a madrigal to be sung by five singers, and he called it, appropriately, "Street Cries of London." Listen to it now; try to understand the words and to see how these "singing commercials" grew from the normal inflections of speech.

LONDON STREET CRIES, Orlando Gibbons (1583-1625) -- 2:46

The madrigal was an extremely popular type of song throughout Europe during the 16th and 17th centuries. Certainly the English loved them and wrote a great many. The madrigal had originated in Italy, and the great growth of melodic line and harmonic development had come with the Italian madrigal composers. Perhaps the greatest of all was Claudio Monteverdi, who lived and worked in Venice until his death in 1643. He wrote many madrigals and the first successful opera, which we will hear more about another time. Monteverdi was a master of melody, as you will hear. He wrote long, beautiful, graceful melodies, and he, more than anyone else, standardized harmony in the diatonic sounds to which we are most accustomed. The madrigal we will hear is one of his better known ones--it is in five parts, only two of which are sung, the others being played on instruments. We will hear the first part of it; it is called "Zefiro Torna."

ZEFIRO TORNA, Claudio Monteverdi (1567-1643) -- 1:50

Up to the time of Monteverdi, music had been almost always polyphonic --that is, "many-voice." Every part played or sang a melody--no one went "oom-pa-pa" or anything like that. This polyphonic music produced its harmony almost by accident; that is, harmonies resulted because notes sounded at the same time--the combination of notes producing a particular harmony. Composers were aware of harmonies, but they thought in terms of "consonant" sounds--sounding together--and "dissonant" sounds--sounding against each other. By carefully controlling consonant and dissonant sounds, they produced the harmonies they desired, but essentially they wrote melodically in all parts. Gradually, along toward 1600, composers began to think more in terms of the harmonies, at least for all the lower parts of the music. The result was that the melody at the top of the music was often lovely and carefully worked out, but everything below was adjusted to fit the harmonies the composer desired, with the result that lower parts came to sound more and more like blocks of chords. This style of writing, where there was really only one melody, was known as "monody"--one voice--as opposed to the older "polyphony"--"many voiced."

The Lutheran Church made the greatest use of this music of monody--one of the reasons for the Protestant reformation was a desire to bring participation in the service right to the common people. They couldn't be expected to sing complicated polyphonic music, but there was a chance with very simple, chordlike music, in which the top note of the chord became a simple melody. This type of hymn was known as a chorale. Hundreds of them were written and in the process the new harmonic technique grew stronger and stronger. Johann Sebastian Bach, whose name you may have heard me mention before, ended nearly every one of his 252 cantatas with a chorale. Listen now to the final chorale to his Cantata #110. Hear how the music moves in simple block chords, and the melody is just a series of short phrases, like a sturdy folksong.

CHORALE: CANTATA #110, J.S. Bach -- 0:55

By the time of Bach's death, in 1750, the new style of monody was really "in"--composers used polyphonic style when they wanted to, but their main technique involved music of monody. Now they began developing the harmonic accompaniments into different kinds of patterns, while the melodies came out clearer, as solo parts with accompaniment. This can be heard very well in the next piece, by Georg Phillip Telemann, who lived about the same time as Bach.

Telemann was a very fine performer and composer--he demanded a great deal from his instruments, as his compositions show. He decorated, or ornamented, his melodies very highly, with turns, trills, fancy little sliding notes, and the like. In this way, his music was much in tune with the times for highly ornamented style was to be seen in everything in the age of the baroque. Listen to this section of the "Italian Air," from Telemann's Suite in A minor. See how the melody stands out clearly from the harmony, and notice how ornamented the melody is.

A MINOR SUITE, "ITALIAN AIR," G.P. Telemann (1681-1767) -- 2:30

During the Classical Period, such composers as Haydn, Mozart, and Beethoven developed melody and harmony to a high degree, but they did stick to the "squarish" quality of the Lutheran chorale, from which all this came. Songs and instrumental melodies became very graceful and quite lyrical, but they retained the evenness and clarity of the Protestant hymn. You can hear this quite clearly in the next piece.

This is by Franz Schubert; it is based on a song he wrote called "The Trout." We will hear "The Trout" as Schubert reset the song for string quartet; it will have the simple clarity of a hymn. Then, after one verse, Schubert adds the piano; the quartet accompanies, playing the harmony. In the next verse, the piano begins to get fancy with the melody, which is being played by one of the accompanying instruments. This is called "Variations on a Theme," the theme being "The Trout," in this case. We will hear the theme and three variations. This will give us a chance to hear how a composer can change a melody over and over and how he can juggle his harmonies into infinite patterns. This is the theme and the first three variations of Franz Schubert's "Trout Quintet."

TROUT QUINTET THEME AND VARIATIONS, Franz Schubert (1797-1828) -- 3:55

I mentioned to you that Monteverdi had written the first successful opera back around 1600. During the 19th century, one of the greatest opera composers was Giuseppe Verdi, who wrote "Il Trovatore," "Aida," "Rigoletto," and many others. Verdi often wrote gorgeous melodies with the simplest possible harmonic pattern of accompaniment. This emphasized the melodies, of sources. One of his best known melodies is the aria, "Caro Nome," from the opera "Rigoletto," in which the heroine is singing about the "Dear name--caro nome" of her beloved. Notice this melody: it sounds like a whole series of dominant scales, yet it has a wonderful musical effect; it certainly doesn't sound like exercises. Notice also how simple the harmonic accompaniment is. Here it is: "Caro Nome."

CARO NOME, from RIGOLETTO, Giuseppe Verdi (1813-1901) -- 2:05

By 1800 our melodies were well established on the major and minor diatonic scales, the ones we hear most frequently yet. However, throughout the 19th century, composers experimented. They began using more and more chromaticism; that is, scales in which many of the intervals, or all of them, are half steps. Instead of sounding like this (play major scale) or like this (minor scale), they sounded like this (chromatic scale). The last scale was a chromatic, or half-step scale. Around 1900, musicians also experimented with the whole tone scale, which sounded like this (play whole tone scale).

Harmonies naturally followed scales, so harmonies became richer, fuller, more complex, until by 1900 many musicians felt that they had stretched these scales and styles as far as they could be stretched. Along came Arnold Schonberg who devised a melodic style he called "sprechstimme"; this was somewhat between speech and singing. He also experimented with harmony, mainly using dissonant chords. His first great work was "Pierrot Lunaire," for "reciter" and small instrumental ensemble. We will hear the first piece from "Pierrot Lunaire"; it is called "Moonstruck." Listen now to what happens to melody and harmony.

PIERROT LUNAIRE, "MOONSTRUCK," Arnold Schonberg (1874-1951) -- 1:32

A pupil of Schonberg's was Anton Webern. He carried Schonberg's system of dissonant harmony further into what we call atonality. Listen to a song in the atonal style; this is being sung, rather than using "sprechstimme"; but see how no scale pattern seems to be apparent. That is what atonality is: a system of harmony in which there is no scale feeling. This song by Anton Webern is in German; it means, "This is a Song for You Alone."

SONG, Anton Webern (1883-1945) -- 0:52

Now we've listened to and discussed melody and harmony in many different styles and periods. Melody and harmony also underwent radical changes in American jazz; we will go into that rather deeply somewhat later. Most of you know, though, that the "blues" were pretty melodic. Our last piece is a number from the "big band" of Count Basie. This number dates from 1938, when swing was the big thing. Listen now to the melody and harmony in Count Basie's version of "Swingin' the Blues."

SWINGIN' THE BLUES, Count Basie -- 3:05

TIMBRE AND FORM

BREAM CONSORT: GALLIARD, John Dowland (1563-1626) -- 1:20

We have heard an unusual combination of instruments playing a galliard, a popular dance from Queen Elizabeth's court, about 1600. I played this music for you to demonstrate an unusual timbre, or tone color. In this case, the combination was violin, flute, cittern, lute, pandora, and viola da gamba. Only the violin and flute are regularly used today, but the other instruments were extremely popular in their time.

Timbre is one of the five important elements of music; we are constantly hearing different timbres in our music. There is the timbre or sound of a Dixieland band, rough and brassy, and the timbre of a symphony orchestra with its wide palette of instrumental sounds. There are so many different combinations, all producing different timbres, that it would be almost impossible to count them all. Today we will listen to some of them.

For the first timbre, I want to play a short section of a piece written for brass choir by the renaissance Venetian composer, Giovanni Gabrieli. This uses trumpets, French horns, trombones, and tuba--all of them standard brass instruments. Listen and try to memorize the timbre, or tone color, of the brasses.

CANZONA SEPTIMI TONI #7, Giovanni Gabrieli (1557-1612) -- 1:15

Now for the characteristic timbre of the woodwinds, let's hear a piece by the modern Brazilian composer, Heitor Villa-Lobos. This is a woodwind quintet; in it you will hear flute, oboe, clarinet, English horn (alto oboe), and bassoon. As you listen, try to remember the brass timbre, and contrast it with the timbre of the woodwinds.

QUINTET, Heitor Villa-Lobos (1881-1959) -- 2:00

Now for string timbre I will play for you a trio, written by the Hungarian composer, Erno Dohnanyi. This was written about 1920 and is for violin, viola, and cello. If you listen closely, you can easily hear the differences in the sound of each: the violin has the highest, thinnest sound, the cello is the deep sounding instrument, and the viola is in the middle. This is the Dohnanyi "Serenade":

SERENADE, Erno Dohnanyi (1877-1960) -- 1:30

We have heard the timbre of brasses, woodwinds, and strings. The last major family of instruments is the percussion group which includes drums, cymbals, gongs, bells, wood blocks, and many others. Here is a piece written especially for percussion ensemble, and it includes almost all members of the percussion family. It is by the American composer, Alan Hovanhess, and is called, "October Mountain."

OCTOBER MOUNTAIN, Alan Hovanhess (1911--) -- 1:20

Of course, there are several more instruments whose timbres we have not demonstrated: these include the piano, harp, bass clarinet, string bass, and contrabassoon, and there are others; but time is too short to listen to them all. The important thing is to be aware of tone color, or timbre, as an important element of music, and learn to recognize it when you hear it.

The human voice also has a distinctive timbre, and among human voices there are four main types: soprano, alto, tenor, and bass. There are subdivisions of these, but for our purposes we will just consider the four main types.

I shall play three short arias from the opera, "Tosca," by Giacomo Puccini, to illustrate the sounds of bass, soprano, and tenor voices; these are operatic voices, probably the most fully developed type of voice. Bear in mind that there are many different timbres within these classifications.

The bass voice is the mature male deep, heavy voice. It corresponds to the bass instruments. Listen to this aria by Baron Scarpia, the basso in the opera, "Tosca."

"GIA...MI DICON VENAL," from TOSCA, Giacomo Puccini -- 1:30

A few moments later in the opera, Tosca herself sings a beautiful aria in answer to Baron Scarpia. Tosca is a soprano.

"VISSI D'ARTE," from TOSCA -- 3:25

Towards the end of the opera, Tosca's lover, Mario Cavarodossi, sings about how life might have been for Tosca and himself. This is a beautiful example of the tenor timbre.

"E LUCEVAN LE STELLE," from TOSCA -- 2:00

For the true alto sound, which is deep and full in the mature female voice, we will hear a portion of a song by the Viennese expressionist composer, Gustave Mahler. This is from his "Song of the Earth" ("Das Lied von der Erde"). The alto soloist is singing of the beauties of youth.

"VON DER SCHONHEIT" (DAS LIED VON DER ERDE), Gustave Mahler (1860-1911)
-- 1:[illegible]

So, we have heard the four basic timbres of the human voice: soprano, alto, tenor, and bass. As you hear music, listen to timbre, learn to recognize it, even as you recognize colors such as blue, yellow, green, and red. Timbre is tone color.

We have discussed rhythm, melody, harmony, and timbre. Last of the five elements is form, or structure. All music is organized into some formal structure, and there are many forms in music, just as there are in art, architecture, poetry, and so on.

To see how a piece is organized into a specific form, we will take one apart, line by line, to see "what makes it tick." Let's do this with a Louis Armstrong tune from 1954, "Ain't Misbehavin'." Its form is just as carefully organized as is the form of a symphony or a concerto; it is shorter, that's all.

The rough outline of "Ain't Misbehavin'" goes like this: there is an introduction of four measures (eight counts), played on the piano, not using any thematic material from the song. It does establish the harmonic character of the piece, the rhythm, and the key. After the introduction come four verses of 32 measures each. After the fourth verse, Louis breaks the rhythmic and harmonic patterns, and plays what we call a "cadenza." Here he goes clear out of key, plays short bursts of melody unaccompanied except for percussion, finally leading back to the key center, or tonic, of the piece and ending with a big chord. So we have: introduction, four verses, cadenza, final chord--that's really not so different from much music we hear from symphony orchestras, bands, and the like. Listen now to the introduction; hear how he establishes the key and the rhythm.

INTRODUCTION to AIN'T MISBEHAVIN', Louis Armstrong -- 0:07

After the introduction, the band plays the first line, eight measures long--we will call this theme "A," principal building block of the form.

THEME "A" -- 0:14

Theme "A" is immediately played again, almost exactly like the first time. Then the band plays a different, answering line, which we will call theme "B"--notice how incomplete it sounds to stop at the end of theme "B"; something more is needed.

THEME "B" -- 0:14

After one line of theme "B" with its incomplete ending, theme "A" is played once more, and this completes one verse. So we have a four-line verse, in the form of AABA. Listen to the complete verse and see if you cannot recognize the beginning of each line.

VERSE 1 COMPLETE -- 0:56

In the second verse, Louis sings the melody, once again following the AABA structure. Notice how he doesn't complete all the lines, but ends some of them with "nonsense sounds"--what we call "scat singing"--this is the same sort of thing as in the madrigals where we sing such things as "Deck the halls with boughs of holly, falalalalalalalala." By having his band play the first verse, more or less straight, Louis has established the melody in our minds. Then in the second verse, he sings: this changes the timbre radically, and he begins to ornament the melody much as baroque musicians did.

The third verse is for the band again, but this time he uses still another timbre--theme "A" is given out both times in a highly ornamented trombone solo; theme "B" is taken by the clarinet, and the final statement of theme "A" is once again taken by the trombone. Listen to it and you will hear AABA: trombone, trombone, clarinet, trombone.

VERSE 3 COMPLETE -- 0:36

In the 4th verse, Louis plays the melody throughout as a trumpet solo. Now, in place of scat singing at the ends of lines, he improvises "falala's" on the trumpet, and the one at the end of the first line is a direct quote from Gershwin's "Rhapsody in Blue." See if you can recognize it when you hear it.

VERSE 4 COMPLETE -- 0:36

After verse 4, Louis goes into the "cadenza"; this is a very free solo, accompanied by percussion. He leaves the steady beat which was established --leaves themes "A" and "B"--and improvises on what we call a diminished chord--one that has no real key feeling. He brings the level of pitch down very low, then in a series of short bursts of notes, builds up, higher and higher, coming closer and closer to the next to final note. He reaches it, then repeats it three times and the whole band joins him in a final triumphant chord!

CADENZA

So, this piece of rather raucous jazz has a very strong structure or form which creates a strong feeling of unity within the piece. There is great variety in the treatment of melody and timbre, and finally, the cadenza adds a very different, almost unsure feeling, which creates tension as it pulls away from the familiar structure and beat; but this tension is finally resolved with the great final chord.

This piece,then, uses the same formal principles as those which govern symphony, opera, dance, marches, and all other forms of music. As you hear any music, listening and trying to follow the form helps you to understand much more about the music and finally to enjoy it more.

Now, let's hear "Ain't Misbehavin'" all in one piece. Listen to it and try to follow the form and the changes in timbre, the ornamentations of the melody and all the little rhythmic "licks."

AIN'T MISBEHAVIN', Louis Armstrong -- 4:02

DATA SHEET 1

General Terms: Music, Art, Literature

RHYTHM: Everything in music referring to time; motion, beat, counting, accent, even speed. In art, rhythm means also motion, repeating of certain lines or shapes; the same in architecture. In poetry, rhythm is the motion of accents, the combination of regular and irregular stresses of sound.

MELODY: In music, a line of pitches which is arranged to produce a recognizable musical thought--corresponds to line in art and architecture, and to the rise and fall of inflections in literature, and to the line of thought in a literary or dramatic work.

HARMONY: Combinations of two or more tones or pitches in music, organized into consonant (agreeing pitches) and dissonant (disagreeing pitches). In art, can refer to combinations of colors or hues, the arrangement of various elements of the art into complementary arrangements, etc. In literature, harmony can be compared to the use of simile, metaphor, and the use of descriptive material to "set the scene" or add background and perspective.

TIMBRE: In music, the tone color, or particular sound of individual sound sources, vocal or instrumental, and the sound, or tone color of various combinations. In art, timbre involves the colors, shades, and hues, and the various types of materials and surfaces used. Timbre in literature could be compared to the medium used: poetry, drama, essay, etc.

FORM: Essentially the same in music, art, architecture, and literature, form is the underlying way a thing is organized, or put together. It is the shape of the work.

STYLE: Refers generally to two things: (1) the individual characteristics of a particular work; that is, the mannerisms that are peculiar to it; (2) the period of time with its own distinctive signs and ways of doing things. The renaissance style, for example, used certain devices which were characteristic of the renaissance only.

HUMANITIES: Studies of activities which are carried on almost exclusively by human beings; specifically, music, art, architecture, social organization, and literature.

ASYMMETRICAL: Uneven; not balanced and regular.

-- Style Periods --

MEDIEVAL: Roughly 400-1400 A.D. Really two periods: the Romanesque, which was dominated by styles from ancient Rome, and the later period, the Gothic, dominated by Germanic style. The medieval period was a time of the greatest growth of the Catholic Church. Art, architecture, literature, and music were all largely in the service of the church. Time of the "Dark Ages," the Crusades, and Feudalism.

RENAISSANCE: Roughly 1400-1600 A.D. Awakening and flowering of the arts. Strong recognition of humanity. End of feudalism, development of merchant class. Strong beginnings of secular (non-religious) arts. Age of the

Protestant reformation.

BAROQUE: Roughly 1600-1750 A.D. Continued rise of merchant class, more and more secularism. Age of counter-reformation. Development of nationalism. Age of Enlightenment. Much display, ornamentation, bigness, pomp and ceremony. A great age of opulence.

CLASSICAL: Roughly 1750-1800 A.D. Reaction to excesses of the Baroque Period. Re-discovery of the wonders and beauties of ancient Greece and Rome, hence the interest in things "classical." Desire for clarity, order, proper classification and arrangement of everything. A very formal age, much devoted to form in everything.

ROMANTIC: Roughly 1800-1900 A.D. A time of great emphasis on individuality --rediscovery of man's "humanity." A time of revolution and social change, much reflected in art and literature. Music expanded greatly, stressing expression and emotionalism.

-- Specific Musical Terms --

SCALE: Stepwise, ordered arrangements of pitches going higher or lower.

DIATONIC: Seven-tone scales most commonly used in today's Western music. Diatonic major most frequently used; diatonic minor, next.

CHROMATIC: Refers to type of scale used on 12 equal half-step intervals.

WHOLE TONE: Scale using six steps, all whole tones, or whole steps.

MODAL: Scales based on various combinations of whole-steps and half-steps, deriving from ancient Greek scales, or modes.

CONSONANT: Harmonies "agreeing" in their inner structure.

DISSONANT: Harmonies "disagreeing" in their inner structure.

ATONAL: Music based on 12-pitch scale, in which each pitch is given equal emphasis; thus there is no "tone center" in atonal music.

HOMOPHONIC: Music with accompaniment, but with a single main melody.

POLYPHONIC: Music with two or more melodies sounding at once. Also called "contrapuntal music."

GREGORIAN CHANT: Vocal music of the Catholic Church, established as official church music around 700 A.D., by Pope Gregory. Single-line melody sung to the prose Latin text of the church service.

MADRIGAL: Type of secular song developed during the "High Renaissance." Polyphonic, usually for 4 or 5 voices. Very popular in Italy and England, and in France, where it was called "Chanson." Developed from a type of poem known as the Madrigal.

MINUET: A courtly dance which emerged during the Baroque. Based on a 3-beat pattern. Eventually evolved into the scherzo and the waltz, which was the most popular dance of the 19th century.

FUGUE: The polyphonic form which allowed greatest melodic expansion and development. Reached its greatest heights toward end of the Baroque.

CONCERTO: Large works for solo instrument and orchestra. Begun in the Baroque; much developed during Classical and Romantic Periods.

CADENZA: Unaccompanied solo section of a concerto, usually designed to show the dazzling technique of the soloist. Very free, improvisational sounding.

SCAT SINGING: Jazz singing style using "nonsense sounds," such as "dooby-dooby-doo," and many others.

TAILGATE JAZZ: Original Dixieland band music played from tailgates of wagons driven around the streets of New Orleans around 1912-1935.

-- Time Chart --

700..Gregorian Chant..............................Medieval Period........700
1100..Development of Organum.......................................1100
Growth of Polyphony
1300..Troubadours, Minstrels.......................................1300
1400..Guillaume Dufay (1400-1474)...............Renaissance Period....1400
1500..Giovanni Gabrieli (1557-1612)................................1500
Claudio Monteverdi (1567-1643)
1600..Johann Sebastian Bach (1685-1750)..........Baroque Period........1600
George Frederick Handel (1685-1759)
Joseph Haydn (1732-1809)
1750..Wolfgang Amadeus Mozart (1756-1791).........Classical Period......1750
Ludwig van Beethoven (1770-1827)
1800..Franz Schubert (1797-1828)..................Romantic Period.......1800
Giuseppe Verdi (1813-1901)
Peter Tchaikovsky (1840-1893)
Giacomo Puccini (1858-1924)
Arnold Schonberg (1874-1951)
Igor Stravinsky (1882--)
1900...Impressionism.........1900
Expressionism
Atonalism
Experimentalism
Dixieland Jazz
1920..Pierre Boulez (1925--).......................................1920
Swing
1940..Bebop..1940
Progressive Jazz, Rhythm and Blues,
Rock and Roll

WHAT IS STYLE?

LA QUARTE ESTAMPIE REALE (troubadour dance, 13th Century) -- 1:53

You have just heard a court dance from the troubadour music of the 13th century, in France. This was music just for fun--it was not formal concert music, nor was it thought of as great "art." It was, for it's day, just as real, alive, and "in" as the latest thing today, whether it be Dixieland, swing, bebop, or rock and roll. It was a type of dance called an estampie, and for all I know, people in the older generation of that time shook their heads over it and felt that the younger generation was going to the dogs, listening to that jazz. But, it was very much in style.

Now, style is what we are going to consider today and for the next three weeks, so it is important that we gain an understanding of what is meant by the word "style." Most of you have a general notion, I believe; it means, for one thing, what is "in" at the moment. Mod clothes, the Beatles, the Jefferson Airplane, cars with tailfins, or cars without tailfins, houses in Spanish style, ranch style--all these are examples of styles. When we say "style," we mean a particular way about something that makes it recognizable as a particular type. You know that in music there is a church style, a jazz style, a "serious" style (usually found in the concert hall), a marching band style, and so on. And there are many different styles among these styles, of course. Style has also come to mean the manner of a particular time and place, so that we speak of Classical style, Baroque style, Renaissance style, and so on, meaning that certain time periods used ways that were similar enough that they can be recognized, even though the works are by different artists.

Literature and art also come within the considerations of style, and style characteristics make it quite possible to look at a picture, read a poem or a novel, see a building, and identify its style period, and many times, the author or creator, just by its style characteristics.

You have heard a dance tune in the 13th century, French troubadour style. Let's listen now to a dance tune in the style of the court of Queen Elizabeth of England. This is from about 1600; remember the troubadour dance? It was a single melody with a strong rhythm, no harmony at all, rather rough sounding and played on instruments that didn't sound very familiar to our ears. Listen now to this piece, and try to think what gives it it's style; analyze its rhythm, melody, harmony, timbre, and form. This is by William Byrd and was called "Monsieurs Almaine."

MONSIEURS ALMAINE, William Byrd (1543-1623) -- 2:12

That was really quite a different style from that of the Estampie. By 1600, harmony was well developed so the Almaine was fully harmonized. Rhythm was still strong, and the timbre was still that of an older age, featuring the lute as it did; but the timbre was more familiar sounding than in the Estampie. The form was very clear, as it usually is in dances, since the form of the music corresponds to a formal organization in the dance.

Now, we'll jump up to 1791, and listen to a German dance by Wolfgang Amadeus Mozart, the great Viennese composer of rococo and classical music. Here the style will have changed again. All the instruments are strings--members of the violin family. The rhythm, while still very clear for dancing, has become smoother, more sophisticated; melody is very symmetrical--a good tune, easy to remember. This is music for the elegant, cultivated Viennese aristocrats, so the style has to conform to their needs; it can't be raucous, rowdy, or very athletic.

GERMAN DANCE, W.A. Mozart (written 1791) -- 0:55

Well, we've heard 13th century dance music from the troubadours, music from Elizabethan England (about 1600) and a courtly dance from Vienna, written in 1791. All of these were good examples of the style of dance music of their times. Now let's hear a piece of American jazz, played in two different styles. This is one of the classics of jazz, "Sweet Sue," and it has been around for a long time, played in many different styles; but always it has been dance music--until just lately. We'll hear it first in Dixieland band style. This, as you know, was based on a little band--usually a clarinet, cornet, trombone, banjo, drums, and bass. Since it was a band, it tended to be pretty loud and raucous, and it was very free. On the last chorus, everyone always improvised on the tune, causing an accidental counterpoint which never came out the same. Here, in Dixieland style, is "Sweet Sue."

SWEET SUE (Dixieland) -- 0:32

During the 1930's, big bands were the style; they used carefully worked out arrangements, and the playing was very controlled. This was the time of what we might call "symphonic jazz," because they used nearly every instrument available. Danceability was the big thing, so the music tended to have a beat and a speed that made it easy to dance to. This changed the style of the music, of course. Here is how "Sweet Sue" might have sounded in the "swing style."

SWEET SUE (Swing Style) -- 0:35

Since the 1930's, "Sweet Sue" has been played by many groups in many different styles. In the last ten years she has undergone style changes that are so "far out" that they are really for listening, not for dancing. Rhythms are too asymmetrical for dancing and harmonies and melodic treatment have gotten so experimental that it's sometimes pretty hard to find poor old "Sweet Sue" in there. But, you know pretty well how the style changes in jazz--this is something we see and hear all the time.

Styles change in all types of music, of course. The music of the past has undergone very great changes. Probably we are more aware of them because we have examples of church music for a much longer time than for any other music. Let's go back and listen for a moment to Gregorian chant.

Remember, this is music in which the style was well set and officially approved by the church, by 900. Rhythms were complex, asymmetrical, and very subtle. Melody was very smooth, often long and complicated, and in a fairly narrow span from high to low. There was no harmony at all; the timbre was that of unaccompanied male voices, and the form simply followed that of the prose text. There was no poetic organization, hence there was virtually no repetition of phrases. This was a music we call "through-composed," and it is the style of the Romanesque portion of the Medieval Period. Listen to the opening of the Mass; this is the first portion, "Kyrie Eleison."

KYRIE (Gregorian Chant, 900 A.D.) -- 1:40

That was the earliest "style" of the Kyrie. Now we will hear it as it was done in 1350. The French composer, Guillaume Machaut, wrote a polyphonic setting of the mass. By this time, instruments and voices were being used together; rhythms were more controlled, since polyphonic performance had become the style, and the melodies had become shorter, more poetic, and more easily recognizable, because certain lines and phrases were repeated. This is the Kyrie Eleison (the same portion of the Mass as the one we just heard) in Machaut's polyphonic setting. See how the style has changed radically.

KYRIE from Polyphonic Mass, Guillaume Machaut (1350) -- 1:25

The difference in style between the Gregorian Kyrie and that of the Machaut Kyrie of 1350 is quite great, I think you will agree. Both Kyries are serving the same purpose and saying the same thing, but the style of the Gregorian expresses the Romanesque style, just as many of the old Romanesque cathedrals do. Machaut's polyphonic mass is Gothic in manner, using the complexities of polyphonic writing in ways that can be compared to the decoration and architecture of Gothic cathedrals and their beautiful stained glass windows.

The mass was set by many composers after Machaut, and each time the setting reflected the style of the composer, and the style of the period in which he lived. Style became more complicated as composers grew more skillful at writing polyphonic music. Finally, in the style period we call the "High Renaissance"--roughly 1500-1600--the Italian composer, Palestrina, made a setting of the mass in a style which was quite advanced harmonically, but comparatively simple polyphonically and rhythmically. Church administrators had been worrying about the style of church music, but they felt that Palestrina's style was perfectly suited to the aims and needs of the church, and they adopted it eagerly. This has remained as the model of the proper style of Catholic Church music from the 16th century on.

The Protestants had developed the chorale, or congregational hymn, as a distinctive style of church music. They had stopped using Latin throughout the service and had begun using their own native languages. This in itself was a major stylistic change and they had made many other changes in the style of worship. Many composers, however, continued to write masses, even though they were Protestants. During the Baroque Period, and even into the Classical, many "concert Masses" were written, using orchestra, chorus, and soloists. An excellent example of this is the great "B-minor Mass" of Johann Sebastian Bach. This is always performed as a concert work, even though the text is that of the Latin Mass. Hear how Bach handles the same text, the Kyrie Eleison, as that which we heard in Gregorian chant and in 14th century polyphony.

KYRIE, B MINOR MASS, J.S. Bach -- 3:17

We know that a great deal of the music of the early Christian Church was brought over from the Jewish service. When Christianity became the official Roman religion during the 4th century, the service was entirely Latinized, even though much of the music was Jewish. The Jewish religion and music lived on its own right and has undergone some style changes, but even today much of it can be traced back to very early music of the Jewish people. The section of the Mass which we have been hearing, the Kyrie Eleison, means, "God have mercy on us," and this evolved from an older Jewish chant meaning the same thing. Let's listen to a Jewish chant which follows the same text, although the words are, of course, in Hebrew. The style here is quite different. Listen to the timbre, form, and other elements, and as you listen, compare them in your minds to the different styles of "Kyrie's" you have just heard. This is "[illegible] us," which means, as in the Kyrie, "God have mercy on us."

[illegible] (Jewish Chant) -- 0:40

Church music has changed slowly since the time of the Baroque Period, but the changes in style have not been very great. The Protestant churches use hymns which are essentially the same in style as that of the old chorales. The Catholic Church has adopted as more or less "official" the style of Palestrina, and composers since his time have tended to use styles similar to his, even though he lived four centuries ago. Jewish music retains much of the style of the church nineteen centuries ago. Some changes can be heard in the anthems of the Protestant churches, which are sung as special numbers by the choir; more modern styles can be used in them, but they are often poorly received because congregations tend to be conservative in their tastes--they like the old style. The very interesting style change is the experimentation that is being done with jazz and folk music in the church. Just last year, Duke Ellington and Vince Guaraldi played "Jazz Masses" at Grace Cathedral in San Francisco, and experiments of this sort are being tried at other places in America and England; so perhaps this will have some influence on the style of church music in the future.

We heard how "Sweet Sue" was radically altered by different styles. I think it will be interesting to hear what happens to a piece of concert music given the same treatment. There is a beautiful cantata, written by Bach, about 1720. It opens with orchestra, and after a bit the chorus joins in, singing a chorale. This is music intended to show how life goes many different ways, that nothing is permanent, nor can be counted on. Listen to how Bach uses scales going in opposite directions at the same time, how the tone colors come and go--orchestra plays alone, then with chorus, and so on. He has purposely "styled it" this way to try to express the text of the cantata.

OPENING CHORUS, CANTATA #26, "ACH, WIE FLUECHTIG," J.S. Bach -- 2:00

About 10 years ago, Constant Lambert, an English composer, took this same music you just heard, added some of our modern instruments which did not exist when Bach was living, substituted brasses for the chorus, and generally "souped up" the whole piece. He wanted it for a high charged ballet number, so he altered the style radically. Before it was a beautifully characteristic piece in baroque style; anyone at all familiar with music could have said, "Oh yes, that's baroque music, and I'm sure it's by Bach. I can recognize the style." Hearing the new version, revamped by Lambert, the piece has changed style so much that it is certainly no longer baroque music, nor does it sound like Bach. Is this good or bad? I'm not sure. In any event, it's a very good piece in the modern symphonic style, but it simply isn't what it was anymore. The style has made a new piece out of it.

I hope that by now you have a clearer notion of what we mean by "style," both in regard to the manner of an individual and his works, and of historical style periods. We will go into the style periods at more length another time.

Now, here is the updated version of Bach's Cantata #26. Constant Lambert calls it, "Ah! How Ephemeral!"

AH! HOW EPHEMERAL!, Bach-Lambert -- 1:49

RENAISSANCE AND BAROQUE STYLE

BASIEZ-MOY (KISS ME SWEETHEART), Josquin DesPrez (1445-1521) -- 1:51

Today I am going to demonstrate some of the basic style patterns of renaissance and baroque music. By this I mean what it is about renaissance music, in the way it is written and performed, that makes it sound like music of the Renaissance, or what are the particular features of baroque music that make it recognizable as music of the Baroque, and not of some other time.

You have just heard a very characteristic piece from the early Renaissance (about 1450 to 1500) by the great composer of that age, Josquin Des Pres. Josquin wrote music for the church, but he also wrote much secular, or non-religious, music. The piece we heard was a secular one, called "Basiez-Moy," or "Kiss Me, Sweetheart." It was for five singers and a group of five instrumentalists who played some music independently of the singers, but mainly played the same notes the singers sang. The music was polyphonic, as nearly all renaissance music was, and the vocal part of the music was the main part, again a renaissance characteristic.

Medieval artists and musicians had concerned themselves primarily with life after death; they felt that the living man was important only in his attitude toward God and the life in heaven; renaissance man was a true humanist. He felt that man's own humanity was important and that what the individual felt was important. Because of this attitude, renaissance artists and musicians tried very hard to make their art and music natural and beautiful; musicians tried to make the music express the emotional meanings of words. While vocal music continued to dominate, the older medieval polyphony gave way to a more personal, warmer, more expressive style of music.

Instead of small groups of four or five singers, each singing an individual part, choruses were used, and solo song, often with lute accompaniment, became very popular. Always, the renaissance musician tried to be very expressive. Listen to this song by the English composer, John Dowland. See if he is not successful in expressing the sadness of an unhappy lover. This was a very popular subject because it gave the composer a chance to be very expressive. It is called, "Flow O My Tears."

FLOW O MY TEARS, John Dowland (1563-1626) -- 1:20

That song of Dowland's, written about 1610, was tremendously popular because the style captured the renaissance spirit. It was beautiful, it was vocal, accompanied by instruments, and it was very, very expressive. It was so popular that it was arranged and rearranged in many ways. Listen to it now as a stately dance, the pavan, played by a typical renaissance consort of instruments.

PAVAN: FLOW O MY TEARS -- 1:40

Choral music caught on more and more during the late Renaissance. By about 1600, it was the style, and it was developed, particularly in Venice, into a polychoral style, where two or more choruses sang from choir lofts on opposite sides of St. Mark's Cathedral. This style of polychoral singing, using choruses and instrumentalists, was very grand and impressive, and was the sensation of Europe at the time. It was called the "grand concertato" style.

Concertato style involves small solo groups, large groups, and an alternation between them, plus combinations of all at once. The Venetian composer, Giovanni Gabrieli, developed this to a very high point. He wrote concertato works for various choirs of instruments which imitated the large polychoral works; these he called canzonas, or sonatas. Listen to his Canzona #14 for three separate choirs of instruments. It contains all the essentials of High Renaissance musical style: expressiveness, polychoral effects, and great variations in timbre.

CANZONA #14, Giovanni Gabrieli (1557-1612) -- 2:00

Actually, Gabrieli's "grand concertato" was at a pivotal position between the Renaissance and the Baroque. Many scholars argue that it represented the beginnings of the Baroque, which was characterized by grandeur, where renaissance music tended to be personal, unpretentious, and intimate. It was definitely a part of the Catholic counter-reformation, in which music, art and architecture were all enlisted in the struggle for people in the competition between Protestants and Catholics. Both groups were going all out in an effort to impress and awe people into becoming converts. In this sense, the grand concertato was baroque. So, grandiose, colorful, magnificent buildings, paintings and music were all characteristic of early baroque style, starting around 1600. For many years baroque and renaissance style stood side by side, but the baroque can be said to have started by 1600.

Another very important style characteristic was that of monody, or music for a single melodic line over a melodic bass line. This style was opposed to polyphony, or many voiced music, which was the principal style of the Renaissance. Monody was first developed by a group of musical and dramatic experimenters who, in the humanistic tradition, were trying to recreate the ancient Greek drama which had used music. They felt that the lines of the drama should be given in a musical reciting, which they called "recitative"; to make the words very clear and understandable, they used only the recited line of melody, supported by a melodic bass line, with the inner harmonies to be improvised by the accompanist. This style of music they called "monody," or single voiced. Their experiments using monody with drama quickly led to the first opera, which wasn't very good, by-the-way. Fortunately, a very great composer was on the scene at the time. This was Claudio Monteverdi, who realized the possibilities of monody. He did much to establish opera as a great dramatic-musical work of art. I will play a short section from his opera, "Arianna." In it you will hear Ariadne lamenting the fact that Theseus has deserted her. This piece is a fine example of the "recited" style of monody. Listen to the expressiveness the singer can use, and how the strong bass line supports the whole work.

LAMENTO D'ARIANNA, Claudio Monteverdi (1567-1643) -- 1:55

From the time of Monteverdi, opera continued to grow in popularity all over the continent. With it, there developed the oratorio, very much like opera, but not a staged, dramatic work. Another popular form of monody which developed was the cantata, which was shorter than oratorio and often used only one or two singers and a few instruments. By 1700 monody was established as the principal style of the period. Polyphony was used in church music, but was otherwise considered old-fashioned. Singing has developed into the bel canto type, and the strong bass line, which I mentioned before, had come to be called the "basso continuo." It was usually played by the harpsichord and cello, bass, or bassoon. The basso continuo became the main stylistic element of the Baroque Period. In fact, many people refer to the Baroque as the "Age of the Basso Continuo."

I am going to play two excerpts from Alessandro Scarlatti's cantata, "Su le Sponde del Tebro." Listen particularly to the style of singing, first in the recitative, and then in the aria which follows. This is real "bel canto" singing. Listen carefully to how the basso continuo is strongly supporting the melodic line of the singer.

SU LE SPONDE DEL TEBRO, Alessandro Scarlatti (1660-1725)
Recitative -- 1:25; Aria -- 1:20

I hope you noticed how the trumpet played as a second melodic part in the aria you just heard. This also was a baroque style and was an outgrowth of the constantly rising independence of instrumental music. The growing expressiveness of music gave composers the chance to write expressive music for instruments alone without having to rely on words. This great growth of instrumental music is the last great stylistic change of the Baroque Period.

The organ and harpsichord emerged as very important instruments, and so did the violin, which had finally been perfected early in the 17th century. Many forms had evolved for the instruments coming from older dance forms, imitations of vocal forms, and from improvisational forms, especially with the lute and the organ. By the beginning of the 18th century, these forms has reached their real perfection, and the style of instrumental playing was quite advanced. Listen to this harpsichord sonata by Domenico Scarlatti, a contemporary of Bach, and perhaps the greatest harpsichordist of the Baroque Period.

SONATA IN F MAJOR, Domenico Scarlatti (1685-1757) -- 1:00

Organ works were brought to high levels of achievement particularly by Bach who was the greatest organist of his time in addition to being perhaps the greatest composer of all time. There were many forms and styles of organ works, although they were confined mainly to the church. Much of the development for organ was at the hands of the north German organists of the Protestant church, especially Bach, although the first great works had come from the Italian Catholic, Frescobaldi. This is the opening section of Bach's great "Fugue in C Major," for organ.

FUGUE IN C MAJOR, J.S. Bach (1685-1750) -- 1:30

The high point in instrumental ensemble music in the Baroque was reached with the trio sonata and the concerto grosso. The trio sonata was a work for two solo instruments and basso continuo, the continuo usually being harpsichord and cello. The majority of trio sonatas were written for two solo violins, although many used solo flutes, oboes, recorders, or combinations of these or other instruments. We will hear the first movement of George Frederick Handel's "Trio Sonata #2 in D Major" for two violins and continuo. Listen to the interplay of the solo violins. Consider the use of the five musical elements, and above all, notice the strength and melodic quality of the basso continuo.

TRIO SONATA #2, D MAJOR (Allegro), G.F. Handel (1685-1759) -- 1:42

The trio sonata represented the high point in ensemble music. Using the same musical elements, the concerto grosso became the real orchestra music of the time. It was an outgrowth and combination of the old Venetian concertato, the opera overture, and the developments leading to the trio sonata. The concerto grosso used a solo group, frequently two violins and cello, and an accompanying group of strings and harpsichord playing the harmony and basso continuo. This form--the concerto grosso--was the great orchestral form, and eventually led to the classical symphony. Perhaps the most important composer in developing the concerto grosso was another contemporary of Bach's, Antonio Vivaldi, who wrote a tremendous number of concertos, and was a very great influence, even on Bach, himself. For our final number today, we will hear Vivaldi's concerto grosso, "La Primavera," which means "Spring," from his set of four concertos which he called "The Seasons."

LA PRIMAVERA, 1st Movement, Antonio Vivaldi (1678-1741) — 3:25

CLASSICAL AND ROMANTIC STYLE

SINFONIA IN B-FLAT MAJOR, Johann Christian Bach (1735-1782) — 1:30

Today we will hear music in classical and in romantic style. We will hear some pieces which will show the differences, and I will point out some of the things to listen for in trying to identify the style of a piece. You may recall that music of the Baroque almost always used the basso continuo, frequently performed by harpsichord with a melodic bass instrument. This was done away with in the Classical Period and has not been restored since.

One of the principal composers who brought about this shift was one of the many musical sons of Johann Sebastian Bach. This was Johann Christian, who left Germany, settling finally in London, where he became known as the "London Bach." The piece you have just heard was a portion of his "Sinfonia in B-flat Major." It is what can be called a transitional piece in that it lies somewhere between the Baroque and the Classical style. In it the basso continuo is gone; all the notes are written out, and there is no keyboard instrument "filling out" the harmonies. The music is very melodic and the rhythms and phrase structure are very symmetrical. Everything is orderly and neatly arranged. All of these are Classical characteristics.

On the other hand, the orchestra is still essentially a Baroque orchestra, except for the basso continuo, so the timbre is still primarily Baroque.

The composer most associated with the Classical Period music is Joseph Haydn who developed classical forms more than any other composer. It is the development of form and formal structure which is the main feature of classical music, and indeed, of the whole Classical Period, which was roughly from 1760 to 1810. This was a time when artists, musicians, and literary people were all concerned with bringing order out of the rich confusion and complexity of the Baroque. Encyclopedias were being written for the first time to organize knowledge and art of the period reflected the desire for calmness and order. It was a period of "coolness."

Haydn built on the works of the composers who followed the Baroque, and he developed the classical sonata form from that of the Baroque sonata. His sonata forms usually involved four movements: the first was fast and in sonata form, the second a slow lyrical movement; his third movement was usually a minuet, and the fourth again a fast one, often in the form of a rondo. Melodies were very clear, symmetrical, and almost always in major. Rhythms also were symmetrical and unchanging within a particular movement. Harmonies were strongly based on the diatonic scale, and the timbre was broadened by a wider use of instruments in the orchestra. Listen to the Finale to Haydn's "London Symphony," and see how he established clarity and strength in the classical style.

FINALE, LONDON SYMPHONY, Joseph Haydn (1732-1809) — 1:55

Haydn used sonata form in the symphony, string quartet, string trio, and in sonatas for piano and other solo instruments. He also used it in the solo concerto, leaving out the minuet. Closely associated with Haydn in the development of classical sonata form was Wolfgang Amadeus Mozart, one of the greatest musical geniuses the world has ever known. Mozart also wrote many works using sonata form as his basic structure. In addition to this, Mozart wrote many great operas, each of which was preceded by an overture in a modified sonata form. His music shows all the classical characteristics of orderliness, clarity, symmetry, and beautiful use of melody. A good example of this is his overture to the opera, "Abduction from the Seraglio."

OVERTURE, ABDUCTION FROM THE SERAGLIO, Wolfgang Amadeus Mozart (1756-1791) — 1:30

The Classical Period didn't really last very long--only about 50 years; but during that time, much of the music we hear regularly in concerts today was produced. The third of the three important composers of this period was Ludwig van Beethoven, who began writing in the style of Haydn, then gradually changed music to the romantic style. His great violin concerto represents the fullest development of the solo concerto in the Classical Period. It is a direct descendant of the Baroque concerto, but a much more dramatic, powerful work, because the sonata form used a new structural principle which the Baroque works did not have. This was a use of two main melodies or themes of contrasting nature. Composers were able to develop a dramatic tension between the two themes which made it possible to write abstract music--music with no story or text, just "pure" music--which was highly dramatic and emotional. It was this element of classical music which Beethoven developed to the fullest degree. Listen to this short portion of his violin concerto, and try to grasp the dramatic effect of the music.

VIOLIN CONCERTO IN D, Ludwig van Beethoven (1770-1827) — 1:27

Beethoven wrote nine symphonies; his first is very classical, much like Haydn's symphonies, and his ninth has both feet squarely in the Romantic Period. Along the way he changed, and so did his music. Now I must tell you what some of the differences were.

The Classical Period was one of organization, of developing dramatic power within the sonata structure, and a period of general sorting out of information. Politically it was a time of great change: the American and the French Revolutions took place, America throwing off British rule, and the French overthrowing their king. People began to be very concerned with the desires, dreams and rights of the individual. This was called a "romantic ideal," and it became a basis for all sorts of cultural activity throughout the 19th century, which is approximately the time of the Romantic Period. Ideas and self-expression led to all sorts of experiments in literature, art and music. The romantics were concerned with the supernatural, such as witches, wood-sprites, and magic. They were interested in mythology, the hero, and tragedy, and they rejected the "coolness" of classicism, in the desire to show their own feelings. The brotherhood of man became important.

Music reflected the romantic spirit by building into the classical forms all sorts of programs, stories and musical pictures of ideas. Beethoven, in his "Ninth Symphony," went so far as to incorporate full orchestra--much larger than any before; huge chorus, and four soloists, singing to a text by Schiller, the "Ode to Joy," the theme of which was "All mankind shall be as brothers." This is music organized on classical forms but fully romantic in its dramatic expressiveness and its text.

FINALE, NINTH SYMPHONY, Ludwig van Beethoven -- 1:27

Franz Schubert continued the trend of Beethoven in that he continued to use classical sonata form, but romanticism ran throughout his music in its expressiveness and increasing use of chromatic harmonies to "warm up" the sound and in his "program" ideas. Many of his works in sonata form have names which suggest some story or program. Listen to his string quartet called "Death and the Maiden."

STRING QUARTET, "DEATH AND THE MAIDEN," Franz Schubert (1797-1828) -- 1:20

Schubert has allowed you to imagine your own story to "Death and the Maiden," since he has written it as a string quartet; hence, there are no words. This gives you, the listener, a chance to be expressive yourself in imagining what he meant. Schubert also wrote over 600 songs with piano accompaniment. Here he extended the romantic style greatly, since he chose poems which were highly expressive, which told stories, and were of great appeal to the romantic-minded people of his time.

Perhaps it would be wise to clear up this word, "romantic." It doesn't mean "love" the way we use it so often. It's a word to contrast with "classical." The people of the late 18th century were fascinated with the order and clarity of ancient Greece--a time they called "classical Greece." They attempted to recreate art based on the same ideals--orderly, clear, formal, "cool," as they called it "classical." It was thought that Roman times were more emotional and expressive--more of the heart than the head--so around 1810 people began speaking of the "romantic" approach--more like that of Rome. It is from this that we also get our name for the "Romance" languages. So "romantic" means, then, expressive, emotional, concerned with the individual and with the exotic, unusual and different.

Another important romantic composer was the Frenchman, Hector Berlioz. He wrote many works, all with descriptions and programs, all highly expressive. His expressiveness did much to break away from the coolness and symmetry of classicism, and he was fascinated with imaginative, fantastic ideas. In his "Symphonie Fantastique," he even incorporated a movement he called "The Witches Sabbath." Listen to it and see how he has added to the timbre of the orchestra by using bells, harps and many more instruments and has made changes of speed, loudness, softness, and many other dramatic effects to try to portray an impression of a "Witches Sabbath."

SYMPHONIE FANTASTIQUE, Hector Berlioz (1803-1869) -- 1:50

The piano had emerged, about 1780, as the dominant keyboard instrument. The harpsichord was abandoned because it was not powerful enough nor expressive enough, and so the piano became a very important solo and accompaniment instrument since it was practically a complete orchestra in itself. The Romantic Period was the great time of the piano and several remarkable players and composers are closely identified with it. Mozart was the first, then Beethoven, Chopin, Liszt, Brahms, and Debussy, and of course, many others. Camille Saint-Saens was one of the great French piano virtuosos of the late 19th century. He wrote many works, usually programmatic, for piano and other instruments. Here is the finale to his Septet for Piano, Strings, and Trumpet. It uses classical form but is romantic in its use of piano and in its elements of virtuoso playing.

FINALE, SEPTET, Camille Saint-Saens (1835-1921) -- 1:27

The most influential opera composer of the Romantic Period was Richard Wagner. He was an arch-romantic in everything he wrote and in the way he himself lived. His operas, based on German mythology, appealed to the romantic ideals of the supernatural, the exotic and the mystic, and they were very nationalistic, another strong romantic characteristic. Wagner used the orchestra to carry the descriptive and emotional burden of his works, while the singers sang the text in a recitative style. His music is very chromatic, breaking away from the diatonic nature of classical music, and the music was very free from the restrictions of form. I am going to play for you a section of his opera, "Die Walkure," in which a magic fire is lit around the top of a mountain on which the sleeping heroine, Brunnhilde, has been placed, in a trance. This is the "Magic Fire" music. Try to imagine the lighting of a great circle of fire. See if Wagner is successful in trying to paint a musical picture such as this.

"MAGIC FIRE MUSIC" from DIE WALKURE, Richard Wagner (1813-1883) -- 2:00

Not all composers of the time were as purely romantic as Wagner. Outstanding among the "not-so-romantic" composers was Johannes Brahms, another of the great German symphony composers. He lived in the second half of the 19th century and his works are all built on classical forms: the symphony, sonata, concerto, etc. Some people even call him a "classical-romanticist," because his music, while very romantic in its expressiveness, is quite classical in its structure. This is the finale to his "Fourth Symphony."

FINALE, SYMPHONY #4, Johannes Brahms (1833-1897) -- 2:00

In some ways, classical and romantic share many elements. Both periods stressed instrumental over vocal music and both made great use of sonata form, although it was greatly expanded in the Romantic Period. Much of our concert music played today comes from these two periods. The main difference is an aesthetic one: classical music stresses formal organization and clarity of content while romantic music stresses the emotional meaning of the content. Vocal music, as solo song, choral music, and opera, continued but not as importantly as during the Baroque or the Renaissance where vocal music ruled. The piano emerged as the principal solo instrument with or without other instruments.

For our final number today we will hear a duet from George Bizet's opera, "The Pearl Fishers." This is typically romantic French opera, very expressive and melodic, concerned with expressing the emotions of the characters. The story is romantic, being laid in the exotic land of Ceylon, and concerns itself with humble people, the pearl fishers.

DUET, "THE PEARL FISHERS," George Bizet (1838-1875) -- 1:37

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20TH CENTURY STYLES

L'ENFANT ET LE SORTILEGE, Maurice Ravel (1875-1937) -- 1:33

You have just heard one of the most remarkable pieces of impressionistic music ever written. If you thought it sounded like a cat fight, you were right! That's what it was--a musical impression of a cat fight, and it shows well what impressionism attempted to do. The movement called "impressionism" began in the late Romantic Period, about 1870. Poets and artists started it and later it was taken up by musicians, notably Claude Debussy and Maurice Ravel, who wrote the work you just heard. The impressionists tried to give an impression of what they were describing, without attempting a literal picture. They felt that if they could succeed with an impression, the listener or watcher could supply imagination to fill the picture out. So, impressionism always tells a part of a story. In music, many exotic effects were used: more percussion, and richer, fuller chords, modal harmonies, and whole tone scales. Impressionism was a special form of late romanticism and it stressed the concern with exotic, far-out images and sounds. As a prime force in music it gave way to other styles by about 1915, but its influences are still felt in much music being written today.

A reaction to impressionism came from the expressionists, who attempted to portray the artist's own inner reactions to outside influences and events. The expressionists were much concerned with psychology, and they were highly moved by the discoveries and writings of Dr. Sigmund Freud. They, like the impressionists, were late romantics. The expressionists attempted to do away with all formal structure, and they looked for new and different ways of showing their expression. Poets and artists produced some very strange works indeed, and the expressionist musicians were right with them. The atonal composers of the early 20th century generally belong to this group. Arnold Schoenberg, Alban Berg and Anton Webern were of this group.

They wrote music with no tonal center whatever--no feeling of scales--and their compositions were often attempts to show the psychological problems of the world. Alban Berg wrote an opera called "Wozzeck" in the expressionist style. It shows the hero, Wozzeck, gradually breaking down until he loses his mind, murders his wife, then commits suicide. I will play a short section of the opera for you--a scene in a tavern. You can hear the rather eerie, half-mad effect of two or three kinds of music going on at once, no recognizable scales, and a general feeling of unreality, which to the expressionist was perhaps the most real.

WOZZECK (THE TAVERN), Alban Berg (1885-1935) -- 1:27

The prime mover of the atonal expressionists was Arnold Schoenberg, who worked out the 12-tone system of serial composition. Hardly any composer of serious music today is free of this influence, so great has it been. Schoenberg's most important work was the song-cycle, "Pierrot Lunaire," from which you have already heard one work. In this, there is a "reciter" who half-talks, half-sings, in a manner which Schoenberg calls "sprechstimme." From the title of the work, "Pierrot Lunaire," means "The Moon-struck Pierrot," or someone half mad from watching the moon. This is expressionist music through and through. It abandons most of the familiar musical techniques and goes new ways. Listen to "Homesick," from "Pierrot Lunaire."

PIERROT LUNAIRE, "HEIMWEH," Arnold Schoenberg (1874-1951) -- 1:27

Another 20th century composer who has been a very great influence is Igor Stravinsky. He studied first in Russia in the 1900's. At that time he wrote Russian nationalistic, romantic music. He came to Paris where he quickly took up impressionism, then burst on the scene with music that was a combination of impressionism, expressionism, and primitive music, in that he added a tremendous percussive element to his music. All of the orchestra, while performing melodic and harmonic functions, always served as percussion instruments too, and the subject matter of his first three great ballets was primitive or folk-like in nature. Here is a portion of his Russian folk-ballet, "Petrouchka." Hear how he uses elements of atonality, lack of tone center, impressionism, picture painting, and how percussively he uses the entire orchestra.

PETROUCHKA, Igor Stravinsky (born 1882) -- 1:33

"Petrouchka" was Stravinsky's second ballet. He went on to compose "The Rite of Spring," a huge, revolutionary work full of impressionism, expressionism, atonality, polytonality, and above all, vibrant, incessant percussive rhythms. After "The Rite of Spring," he changed his style to what he called "neo-classical" style, and in the last few years he has become a full-fledged 12-tone, serial composer, but his insistent use of percussive rhythms has had its impact on almost all music since 1913.

Another school of composers of the 20th century is the nationalistic school. These composers have stuck to romantic techniques of writing, using thematic material from their native folk music. All of the current Russian writers work in this style, and so do many modern American composers. One such is Aaron Copland, who has written much successful music in an American idiom: music for piano, chamber music, ballet, choral music, and movie sound tracks. His work, "Appalachian Spring," is a ballet based on Shaker melodies. It has a contemporary flavor but is still based solidly in romantic techniques.

APPALACHIAN SPRING, Aaron Copland (born 1900) — 1:29

Another American, harder to classify, and almost unknown until the last 25 years, is Charles Ives, who wrote music as a hobby but made his life's work as a successful insurance executive. Many musicians feel that he is perhaps the great genius of American music to date. He wrote atonal, polytonal, polyrhythmic works as early as 1890, well before the European expressionists, and he used American folk music, hymn tunes, and soldier songs as thematic material. He also wrote music which used the element of "chance" since it depended on improvisation at many points. In this respect, he was a fore-runner of those now writing what some call "chance" music—a music related to art "happenings." In 1908 he wrote a piece called "The Unanswered Question," which I am going to play for you in its entirety. It has three distinct groups, each playing in a different style. The strings play a simple, repetitious hymn-like melody over and over. This represents the well-ordered society—the "status quo." The trumpet enters from time to time, whenever the conductor indicates that he wants him to—this is the "chance" element. The trumpet is supposedly asking the question, "What is life all about?" The woodwinds answer in a completely atonal, dissonant choir; they represent the "seekers after the truth." In the end the trumpet asks the question one final time—still there is no real answer—the strings go on to the end.

Ives has told a story—without a real end or an answer—and he has used contrasting styles within the one piece to show the contrast of ideas in the three groups involved. Here it is, "The Unanswered Question."

"THE UNANSWERED QUESTION," Charles Ives (1874-1954) — 4:27

The atonal, 12-tone style of writing known as "serial music" was begun by Schoenberg. There are many composers today using this style almost exclusively. In addition to arranging the notes in a 12-tone series, some are arranging rhythms the same way, and most have become very interested in rhythmic, percussive sounds. Melodies in this style tend to be very angular with wide leaps. They are very difficult to sing. Timbres are often thin and instruments of very different color are used. Polyphonic writing is the rule. One of the most successful writers in this style today is Luciano Berio. Here is a portion of a work of his called "Circles." It is a setting of poems by e.e. cummings. It shows very well the style of serial composition today.

"CIRCLES," Luciano Berio (born 1925) — 1:27

Still another trend in 20th century music is that of making music totally different from all that has gone before. Some composers use percussive sounds and various types of sounds from the world about, but they don't attempt to use notes and scales as we have in the past. This is music, though it sounds so different because we don't hear the familiar, accustomed timbres, melodies, and harmonies of singing or of the instruments we have become familiar with. If music is the organization of sounds into some intelligible expression of an idea, then these works are music, even though it doesn't fit the well-known patterns. Some composers of this music, called "musique concrete," use electronic sounds, some use sirens, pieces of pipe and other sound producing apparatus, and some tinker with conventional instruments; but all are experimenting with timbre, to try and produce new timbres.

Edgar Varese is a leader in this field. One of his early works uses an assortment of percussion instruments, plus fire sirens, to produce a very remarkable effect. He still uses the elements of music—that is, rhythm, melody, harmony, timbre, and form—but he has used them in such an unusual way that the effect is startling, to say the least. This is the work, "Ionisation," by Edgar Varese.

"IONISATION," Edgar Varese (born 1885) — 0:47

Some people like music of many styles, and some are particularly attracted to music of a particular style, such as that of the Classical, or of the Romantic Period. One thing seems apparent, though, and that is that when we get to 20th century music, such as the pieces you have been hearing, we begin to see a sharp difference between those who do like it and those who don't. And often those who don't like it are in the majority.

I think this is largely due to the fact that these are sounds we don't know. This is, then, a case of "I like what I know," rather than "I know what I like." If we listen to some of these contemporary pieces enough to get to know them, we learn to like many of them very well. I don't know what the music of tomorrow will be, but I do know that this is the music of today; much of what we hear and like is the music of yesterday or last week, figuratively speaking. So, if we are going to "get with it," we've got to listen to it. The same sort of thing is happening in art, by-the-way. We have all sorts of experiments going on in painting and sculpture, and the problem of "I like what I know" is just as real for the artist as it is for the musician.

For our last work, we will hear a piece of electronic music. In this case, the composer has tape-recorded certain notes played by a flutist.

Then he has re-recorded some of these notes at different speeds, fed them through electronic reverberators and other equipment to produce many interesting sounds. Then he has re-recorded the whole thing with a flutist playing music he wrote to go with electronic sounds. The composer is Otto Luening, and the piece is called "Fantasy in Space."

"FANTASY IN SPACE," Otto Luening (born 1900) -- 2:20

DATA SHEET 2

General Terms: Music, Art, Literature

ROCOCO: Final stages of Baroque Period, and transition to Classical. Roughly 1720-1760. An age of excessive ornamentation and decoration, primarily devoted to aristocratic tastes. As is "baroque," the word "rococo" was originally derogatory.

IMPRESSIONISM: Style in art, literature, and music, in which detail is avoided; the artist attempts to recreate the impression of what he is depicting, leaving the details to the observer. Primarily a French style beginning in art and literature about 1870, in music about 1885. Began to lose ground about 1910, although many elements still in use.

EXPRESSIONISM: Movement began about 1910. It is supposed to record and express the inner, psychological and emotional experiences of the artist. Expressionists in all fields tended to throw away all the rules in order to give themselves the greatest freedom for expression; some critics feel that expressionism is just an advanced form of romanticism.

NATIONALISTIC: Artists, writers, and musicians who attempt to create works which will express ideas peculiar to their own nationality. Nationalism was a strong characteristic of romanticism.

-- Musical Terms --

SERIAL MUSIC: Music based on the "12-tone row." Also called "atonal" and "dodecaphonic." Principal composers of the past generation were Arnold Schoenberg, Alban Berg and Anton Webern. Called "serial music" because notes arranged in an exact series, which repeats itself over and over.

MUSIQUE CONCRETE: Music dating from about 1950, based on magnetic recordings of atmospheric, electronic, and conventional musical sounds. These recorded sounds are then electronically transposed, lengthened, shortened, repeated, etc., to produce a really new music, not much related to conventional instrumental or vocal music. Also called "electronic music."

MASS: The Catholic service of worship. Sections of it used in all masses are: "Kyrie" (Lord, have mercy...), "Gloria" (Glory be to God on high...), "Credo" (I believe...), "Sanctus" (Holy, holy...), and "Agnus Dei" (Lamb of God...).

CHORALE: Hymn tunes of the Protestant churches.

POLYCHORAL: Music using more than one choir of singers and/or instrumentalists. Much used by Venetian school with Gabrieli.

CONCERTATO: The style of Venetian performance of polychoral works around 1600. Multiple choirs of singers and instrumentalists performing from various parts of the cathedral, sometimes separately, sometimes together. Very grand and glorious.

OPERA: Drama with music--"invented" about 1600 in Florence by the "camerata." Perfected shortly after by Monteverdi. Further developed by many others, including Alessandro Scarlatti, Gluck, Mozart, Wagner, Verdi. Probably the most all-inclusive art form ever devised, it includes music, poetry, literature, drama, dance, painting, sculpture, architecture, all in one great synthesis.

ORATORIO: Similar to opera, but not staged; also used soloists, chorus, orchestra. Tended to be more religious, usually used narrator to fill in dramatic details which could not be seen since oratorio was not staged.

CANTATA: Small scale version of oratorio; often used only 1 or 2 soloists, no chorus, small ensemble of instrumentalists. Was the "chamber version" of oratorio. Later (18th century) developed into larger works midway in size and numbers between the older chamber cantata and oratorio.

RECITATIVE: "Reciting" style of singing developed by monodists to be used in music drama. Usually "told the story" in prose rhythms, carried action of the story line forward.

ARIA: Poetic form used in operas, oratorios, and cantatas; used to develop the emotional aspects of the situation, where expressiveness of music can be used to heighten the emotions; dramatic action usually stops to allow emotional situation to be developed by the aria.

BASSO CONTINUO: The principal style feature of the Baroque; a melodic bass line composed to support the melody being sung or played. Inner harmonies to be improvised by keyboard player of the continuo. Usually a melodic bass instrument such as cello, bass, bassoon, or trombone "doubled" bass line in the harpsichord or organ.

SONATA: This word has several meanings: (1) Late Renaissance or early Baroque--a piece to be played by instruments rather than one to be sung; (2) Late Baroque--an instrumental work in 3 or more sections, played as ensemble music, always with basso continuo. Could have anywhere from 1 to 3 or 4 solo parts above the continuo. Trio sonata was the most usual form; (3) Classical and Romantic Periods--the sonata was a four movement work, with the first movement in "sonata form"; sonatas were for solo piano, some other solo instrument with piano accompaniment, occasionally for some other instrument unaccompanied. Sonata form is the most important form of the Classical and Romantic Periods.

SONATA FORM: A specific form developed during Classical Period; based on two contrasting themes; their development to a period of dramatic crisis, and then a resolution of the crisis. Sonata form was almost always used as the first movement in classical and romantic sonatas, ensembles, symphonies and concertos.

SYMPHONY: Classical sonata for full orchestra; usually in four movements. The major form of classical and romantic music.

CONCERTO: Outgrowth of the Venetian concertato, opera overtures, and trio sonatas. "Concerto grosso" was the great orchestral form of the Baroque Period. This was a three movement work for small group of soloists and string orchestra. The concerto grosso gave way to the solo concerto, for just one solo instrument and orchestra. In the Classical Period the solo concerto became the main concerto form, and the first movement was usually in sonata form. Also, the piano became the instrument most used for concerto solos.

SYMPHONIC POEM: Developed during latter half of Romantic Period; this is a descriptive work often using sonata form, often just in one movement. Other related forms are: tone poem, symphonic suite.

SONG CYCLE: Primarily a work of romanticists. Composers would set a series of poems which, when performed consecutively, would tell a complete story. Usually for one singer with piano accompaniment.

-- Time Chart --

1300..Guillaume Machaut (1300-1377)..................Medieval Period..........1300
(Gothic)
1400..Josquin des Prez (1445-1521)...................Renaissance..............1400
Giovanni Pierluigi da Palestrina (1525-1594)
*Giovanni Gabrieli
John Dowland (1563-1626)
*Claudio Monteverdi
Girolamo Frescobaldi (1583-1643)
1600..Alessandro Scarlatti (1660-1725)...............Baroque Period...........1600
Antonio Vivaldi (1678-1741)
Domenico Scarlatti (1685-1757)
*George Frederick Handel
*Johann Sebastian Bach
1750..*Joseph Haydn..................................Classical Period.........1750
*Wolfgang Amadeus Mozart
*Ludwig van Beethoven
1800..*Franz Schubert................................Romantic Period..........1800
Hector Berlioz (1803-1869)
*Giuseppe Verdi
Richard Wagner (1813-1883)
Johannes Brahms (1833-1897)
*Peter Tchaikovsky
Claude Debussy (1862-1918)...........................Impressionism
*Giacomo Puccini
Richard Strauss (1864-1949)..........................Impressionist
*Arnold Schoenberg...................................Serial Music
Maurice Ravel (1875-1937)............................Impressionist
*Igor Stravinsky.....................................Impressionism, Neo-Classicism, Serial Music
Anton Webern (1883-1945).............................Serial Music
Alban Berg (1885-1935)...............................Impressionism, Serial Music
1900..Aaron Copland (1900--).........................Nationalist American...1900
John Cage (1912--)...................................Chance Music, American
Luciano Berio (1925--)...............................Chance, Electronic, Serial Music
*Edgard Varese.......................................Electronic, Serial Music
Karlheinz Stockhausen (1928--).......................Serial Music

*Names marked with asterisk are listed on Time Chart for Data Sheet 1.

SACRED AND CEREMONIAL MUSIC

VOLUNTARY IN C, Henry Purcell (1658-1695) -- 2:30

That was a piece of organ music by the important English baroque composer, Henry Purcell, who died in 1695. This piece was called "Voluntary in C," and was of a type of music used for processionals into or out of the church.

Music for religious use and for various types of ceremonies is really a large, special section of our total amount of music. Much of the music we use in ceremonies such as graduations, inaugurations, coronations, etc., is music just one step removed from religious music since many of these ceremonies still take place in connection with the church.

Religious music is probably one of the oldest types of music and is found everywhere in the world. Probably prehistoric man used music to try to persuade the various gods to send rain, take away the cold, protect him from fierce animals, and the like. From this type of music, religion has continued to develop music in its service up to the present time. We are going to see how this has been done in different times and different places.

In the Orient music and religion are very tightly bound together. As you probably know, most oriental music sounds quite different from the music of the western world, and this is true of the religious music, as indeed it should be since almost all music probably evolved from that used in religion. I am going to play for you a short section of music from Tibet. This is Lamaist chanting. Listen to it for the five basic elements; see how they are used in this Tibetan religious music.

LAMAIST CHANT (TIBET) -- 1:00

That was music pretty far removed from what we are used to--in harmony, rhythms very difficult to detect, scale intervals smaller than those we use, indistinguishable melodic line, and even an unfamiliar timbre; but to the Tibetans this music is meaningful, expressive and functional--it serves its purpose.

Now let's hear music a little closer to home. This is Yemenite Jewish music, probably very similar to the Jewish music of 2000 years ago, which was the direct ancestor of our own occidental music. In it you will hear the chant of the leader; he is intoning a prayer. It is a rather simple melody, nothing else--no harmony, simple rhythm fitting the rhythm of the words, a single voice. As you listen to it, try to imprint it in your memory because much of what you will hear later is related to it.

YEMENITE JEWISH CHANT -- 1:00

With the beginnings of Christianity the music of the Jews was taken to Greece along with Christian teachings. There the Christian and the Greek elements of religion, philosophy and music all combined. Greek music, like Jewish music of the time, had no harmony, and the rhythms were made to fit the rhythms of the words. We know much of what the Greeks thought about music, and we know they used a great deal of it, but we have only few examples of it. I am going to play one of the few fragments we do have. This is a hymn to the oracle of Delphi. Once again, as you did with the Yemenite Jewish chant, listen to the elements of music in this Delphic hymn. Try to remember the style of the music.

DELPHIC HYMN (ANCIENT GREEK) -- 1:20

The melodic line of the Delphic hymn may have sounded a bit odd or different to you; if so, it was because it was modal--that is, the arrangement of the notes was not the same as in the scales we hear usually today. This modal quality in the melodic lines continued in music for almost 15 centuries and did not really disappear until about 1600. The modes were similar to scales, and there was even a mode which sounded much like the diatonic major and minor scales which we use mainly today. So, if you hear music in this particular mode, then it tends to sound familiar.

As you may know, Christianity had a very difficult time during the first 300 years, and it was during this time that Rome was in its greatest glory. There was much persecution of the Christians, and there was a developing Greek Christian sect, and an underground Roman Christian sect. Finally, in the 4th century, Christianity was officially recognized. With that, the Roman world became Christian, the persecution ceased, and the church quit being an underground organization.

Bishop Ambrose of Milan attempted to organize chants in the church to standardize the service; so he wrote down, as well as he could, all the chants known to him. These had a distinct Jewish-Greek flavor. In a moment you will hear a short section of Ambrosian Chant. As you listen, remember the sound of the Delphic hymn and of the Jewish chant. I'm sure you can recognize the basic similarity between them and the Ambrosian chant.

AMBROSIAN CHANT (400 A.D.) -- 0:25

By the 6th century, the church had become very well organized. Much music had been added to the service, and a good bit came from folk music, dance tunes and the like. The church was very concerned with this, and so a series of popes worked on the problem of the music of the church. It was finally reformed under Gregory the Great about 600 A.D., and his name was given to the official chant, or "plainsong," of the church. From that time on it has been known as "Gregorian chant."

The Latin service had taken on the form called "the Mass," and it is this structure, or organization, of the service that has continued to the present. The Mass was in several sections, the invariable ones being "Kyrie," "Gloria," "Credo," "Sanctus," and "Agnus Dei." These were originally sung in Gregorian chant and continued that way until about the 12th century when polyphonic music was introduced into the Mass.

One interesting development in the church was known as "Liturgical Drama." It was a dramatic presentation of certain biblical scenes. These were acted out by monks and priests, and the lines were sung, using Gregorian chant. Usually the singers were accompanied by instrumentalists playing simple versions of the melodic lines being sung. Liturgical Drama began in the 12th century and can be considered one of the ancestors of our modern operas and oratorios. Listen to this short song from "The Play of Daniel." This is the story of Daniel in the lion's den; we hear Daniel lamenting his misfortunes. Perhaps, knowing what it is about, you can tell that he is expressing unhappiness and frustration; if you hadn't been told this, though, you might very well have thought it just another bit of Gregorian chant. Listen to it now: Daniel's Lament.

LITURGICAL DRAMA, "PLAY OF DANIEL" -- 1:05

By about 1000 polyphonic music was being written, at first very primitive experiments where a section of Gregorian chant was sung with another voice singing exactly the same thing but five notes lower. This was known as "organum." Gradually the "organal" part became more flexible and less parallel to the original melody. By the 15th century, polyphonic writing and performance was in full swing. Listen to this short Kyrie in polyphonic style; this is 15th century Spanish polyphonic music.

15th CENTURY SPANISH POLYPHONY -- 1:37

Polyphonic writing increased through the Renaissance as composers and performers developed skills and techniques. When the Protestant reformation took place, it began with the music of the Catholic church, then modified it to suit its needs. The chorale, or congregational hymn, was one of the great innovations of the reformation. Lutheran music became a blend of the original Catholic music and the new music based on the chorale. Michael Praetorius wrote much music in the newly developed Protestant style. Here is a short section of his "Wie Schön leuchtet der Morgenstern" ("How Brightly Shines the Morning Star").

WIE SCHON LEUCHTET DER MORGENSTERN, Michael Praetorius (1571-1621) — 1:50

The Protestant reformation brought on a reaction within the Catholic church, and this was known as the "counter-reformation." The aims of the counter-reformation were to accomplish as many of the reforms as possible, which had been demanded by Martin Luther, and still to maintain the integrity of the Catholic church. One of the big reforms came in the music, which had grown very complex and highly polyphonic.

Giovanni Pierluigi da Palestrina wrote mass settings and motets which seemed to suit the austere dignified needs of the counter-reformation, and Palestrina's music was adopted as the official proper style of the Catholic church. It has remained pretty much that way ever since. I will play a short section from the Sanctus, from a Palestrina Mass, written about 1570. Listen to the beautiful melodic lines, the wonderful harmonies, and the timbre of the unaccompanied "a cappella" choir.

SANCTUS, Palestrina (1525-1594) Counter-reformation music — 1:20

England also experienced the Protestant reformation. Here the Anglican service was established, and many formerly Catholic "antiphons" were written in English and called "anthems." They still used the same techniques of polyphonic writing, simply adapting them to English. Listen to "All Sinful Nations" written by Pelham Humphrey in 1670. This type of anthem led to the great variety of anthems sung by choirs in Protestant churches today.

ALL SINFUL NATIONS, Pelham Humphrey (1647-1674) — 2:00

As the Baroque Period developed, the monodic style so popular in opera and cantata crept into the music of the church, especially in Protestant music, which did not have a specific model as the Catholic music did with that of Palestrina. The Germans adopted the cantata to their church service and especially in the 17th century brought it to a high level of expressiveness. Here is a portion of a Christmas cantata by Dietrich Buxtehude, who preceded Bach as a great organist, choirmaster and composer in Germany. This is a choral cantata based on a very old Christmas text, "In Dulci Jubilo."

CANTATA: "IN DULCI JUBILO," Dietrich Buxtehude (1637-1707) — 1:20

As in so many phases of music, Johann Sebastian Bach represents the greatest of the religious cantata writing. Here is a section of his Cantata #174; a short orchestral interlude, then the closing chorale. It is a straightforward, four-part chorale, full of the rich harmonies of Bach, and expressive of his profound belief and trust in his faith. As such, this served the Lutheran purpose perfectly and has never been surpassed.

CHORALE, CANTATA #174, "ICH LIEBE DEN HOCHSTEN," J.S. Bach — 2:10

In addition to his wonderful cantatas, Bach wrote a great Mass in B minor to the Catholic liturgy. It is performed as a concert work but is not ever used in the service. The classical composers wrote Masses in classical style, but they, too, are usually performed in concert.

Palestrina still remained and remains as the model in Catholic music. Protestant music has not changed significantly since the time of Bach. There are many more hymns, based on the chorale style, and there are many anthems, descending from such works as "All Sinful Nations." Church composers have not made their music keep up with modern trends in music generally, however, since congregations tend to be conservative. Church music in all styles has been written, but most of the more modern such simply is not accepted. For an example of modern church music which is accepted, I will play a portion from the Anglican service of Edmund Rubbra. This was written in 1962 and certainly has used some modern sounds, but by-and-large it is conservative music which could come from as far back as the 17th century, except for the harmonies.

ANGLICAN SERVICE, Edmund Rubbra (born 1901) — 1:10

For our final work today we will hear a selection of music from a modern Sephardic Jewish service. This keeps many of the characteristics of Jewish music as heard in the Yemenite chant but has been influenced by music of the Catholics and later of the Protestants, especially in the matter of meters and choral singing.

It does still retain the antiphonal character of ancient Jewish music, with the [illegible] between leader and congregation; the solo sections for cantor still maintain the old style, but the choral sections show the influence of modern times.

As you listen to it, remember that 2000 years is a long time. A lot has happened, many changes have been made. It retains a tradition that long, with as little change in style as there has been, is quite remarkable, and it says a lot for the durability of the Jewish service, out of which the great body of Catholic music grew. About 1500 there came the branching off and development of the Protestant service with its music, but the three are directly and vitally connected.

[illegible], [illegible] (modern Jewish music) — 1:30

ORIENTAL MUSIC

BYZANTINE CHANT: [illegible] — 1:10

You have heard enough Gregorian chant by now to think that perhaps this too was Gregorian, but the truth is it is not. This was Byzantine, or Greek chant. It is certainly first cousin to the Gregorian, but there are real differences. Of course, most obvious, this was in Greek, while Gregorian is in Latin, but this may not have been so easy to hear. Also, this was quite modal. It is called Byzantine because it developed in the eastern part of the Roman Empire, whose capital was Byzantium, the city called Constantinople and now Istanbul.

Christianity found its first strong foothold in Greece, and it flourished there, absorbing many Greek ideas and musical and artistic practices. It is this Greek version of Christianity that eventually developed into the Greek Orthodox, Russian, Serbian, Croatian, and Albanian Orthodox churches. They are Catholic, but they have split with the Roman branch of Catholicism; consequently they have developed their own music based on Greek chant, and it has not changed much since the 8th century.

Shortly after the beginning of the 4th century, the Emperor Constantine officially recognized Christianity as the state religion, and when this was done the church emerged from an "underground" type of organization, fully organized, complete with a large body of music. Much of the music had come from the Jews, much had been added by the Greeks, and the Romans had picked up and added songs from the streets and the taverns with religious words.

Bishop Ambrose of Milan established a type of chant during the 4th century as an official kind. It was based primarily on Greek models. We will hear the Ambrosian chant to the "Pater Noster"--the Lord's Prayer.

AMBROSIAN CHANT: PATER NOSTER -- 0:55

Ambrosian chant was one kind; another was found in Spain, influenced by the Moors--this was the Mozarabic chant--and there was also the Gallican chant. All of these kinds of chant plus the constant addition of secular songs to the service caused a real overhaul and reform by a series of Popes. This reform was completed by Pope Gregory the Great, about 604 A.D., and the reformed music was called "Gregorian chant," or "plainsong." It was the official music of the church from the 7th century on. It was monophonic, unison chant of the religious text, in a simple, unadorned manner. The Gregorian chant was typical of medieval life from 700-1000, the time when it was the music of the church. It was unemotional, detached, contemplative, music which made no attempt to express the feelings of the individual. Life in those days meant accepting what came, looking forward to a better life in the afterworld. The music and the art expressed this. Listen to the section of the mass where the text says, "Glory to God in the Highest"; this is the "Gloria Patri." See how cool and detached the Gregorian chant is in this emotional text.

GREGORIAN MASS: GLORIA PATRI -- 1:55

The liturgical drama came along after polyphonic writing had begun, but it still used much monophonic chant. It did try to tell a story, though it used chant as its medium. Sometimes things were not too realistic, as in the example I will play. The scene is outside Jesus' tomb; three women (sung by monks or priests) ask the angel where is the body that was within the tomb. Since the three women's parts had to be sung by monks or priests, the women's voices turn out to be men's. The angel answers in Gregorian chant. The three "women" question him again and sing "Hallelujah, Christ is Risen," all in unison chant. So it isn't very credible, dramatically. But it is a beginning for drama and expressiveness in music; from that standpoint it is important.

LITURGICAL DRAMA: "QUEM QUAERITIS IN SEPULCHRO?" -- 2:15

The first experiments in music for more than one voice--polyphonic music--used voices singing exactly parallel to each other but five notes apart. This was called "organum." Listen to the next example. The first portion, "Tu gloria mundi," is in strict organum. The second section, the "Alleluia," is in free organum wherein a few notes are parallel, most are not. This music dates from about 900, and in its day was thought to be very modern and advanced.

ORGANUM: "TU GLORIA MUNDI" and "ALLELUIA" -- 1:40

The next development of music was at Notre Dame in Paris where the composers, Leonin and Perotin, worked. They wrote in a style of organum which systemized the use of more than one melodic line, leading to 3 and 4-part polyphonic writing. Their writing sounds rather strange and different to us, but they perfected the techniques of writing in a multivoiced style using a Gregorian melody as the basis for the work. Listen to this "Alleluia" by Perotin in the Notre Dame style. Notice particularly the long held notes in the lower part. It is singing, very slowly, the Gregorian Alleluia to which the upper parts are the counterpoint.

ALLELUIA, Magister Perotin (early 13th century) -- 1:57

A special type of religious song was cultivated in Spain during the 13th century. It was always concerned with miracles associated with the Virgin Mary. These songs were called "Cantigas de Santa Maria." The one I shall play for you is of interest because it uses an instrumental accompaniment and also because its rhythm and melody suggest that it probably came from some popular dance tune of the time. This gives an idea of what the dance music must have sounded like. This particular tune is called "[illegible] con Flautas."

LAS CANTIGAS DE SANTA MARIA, "[illegible] CON FLAUTAS," del Rey Alfonso El Sabio (1221-1284) -- 1:25

The world of Gregorian chant was primarily a Romanesque world. It still lived in the shadow of Rome and of the church based in Rome. Gregorian chant can be compared to Romanesque art and architecture with its "other-worldly" almost inhuman type of expression.

After the Notre Dame composers of the 13th century, polyphonic music developed rapidly and portions of the mass were written polyphonically, although many sections were kept in plainsong. Guillaume Machaut made the first polyphonic setting of the mass, and he used many new sounds or timbres in his work. In his day he was the greatest composer in the world. I shall play the beginning of the Benedictus from his polyphonic Mass. Listen to how he combines voices and instruments and how he uses "hocketing," a form of rhythmic repetition of notes, to create special rhythmic effects in his music. This was written sometime near the middle of the 14th century, about 1350.

BENEDICTUS, POLYPHONIC MASS, Guillaume Machaut (1300-1377) -- 1:45

John Dunstable was the next important composer to affect music significantly. He spent most of his adult life with the British court in France during the wars with Joanne of Arc. He really exerted an influence on the composers and musicians of Burgundy and Flanders from about 1420-1450. He went on in the manner of Machaut but made his music more sensitive and expressive. I am going to play a short piece called "Sancta Maria." Listen to how flexible it seems--none of the stiffness or rigidity that have gone before. It was this flexibility and expressiveness of Dunstable's which influenced later composers.

SANCTA MARIA, John Dunstable (1390?-1453) -- 1:45

Machaut, Dunstable, and later Dufay, all were the most important composers in Europe during the 14th and 15th centuries, and they all lived and worked in the area known as "The Netherlands," which included present day Belgium, Holland and parts of France. The center of musical activity had shifted from Italy to the Netherlands and remained there until the middle of the 16th century, well into the Renaissance. Composers from all over Europe came to the Netherlands during this long period to study the methods and styles of these composers and to carry these techniques back to their own homelands.

Another of the very great Netherlands composers was Johannes Ockeghem who developed polyphonic techniques to such an extent of complexity that in one piece he had 64 separate parts! He also began the practice of true choral singing where more than one singer sang the same part. And he, perhaps more than any other composer of the time, extended the limits of polyphonic devices and technique. He wrote long melodic lines intertwined with the other voices in rich, dark timbres. Here is his famous chanson, "Fors Seulement."

CHANSON, "FORS SEULEMENT," Johannes Ockeghem (1430-1495) -- 1:25

Ockeghem's music was still Gothic, still essentially medieval, even though the Italian Renaissance had begun. While it was expressive music, it did not attempt, as renaissance music later did, to show musically the exact meaning of the words. This was still music directed to heaven, the same as the Gothic cathedrals where it was played and sung. A pupil of Ockeghem's was Jacob Obrecht who began to move more toward the ideas and ideals of the Renaissance. He, like Ockeghem, wrote polyphonic music of an exalted, religious nature; but Obrecht began to try to make his music express the meaning of the words, and he used shorter lines of text to help the hearer to understand the words. These are characteristics that move him toward the Renaissance. Here is Obrecht's "Si Oblitus Fuero."

"SI OBLITUS FUERO," Jacob Obrecht (1452-1505) -- 1:08

Another pupil of Ockeghem, and probably the greatest of all the Netherlands composers, was Josquin des Prez, born in 1445, died in 1521. Josquin travelled to Italy, all over France and Germany; he was very aware of the renaissance in art and can probably be called the first great renaissance composer.

He used the polyphonic techniques of the Netherlands school but introduced the important concept of understandability and expressiveness. He was always most concerned that the music should express the meaning of the text. This was a tremendous change of approach and actually caused radical changes in the sound of the music itself. He wrote great amounts of secular music in which he particularly extended the concept of expressiveness. His religious music is much closer to our times than that of any composer before him. In fact, many people regard Josquin as the first composer of our modern age. Listen now to the opening of the "Credo"--the "I Believe" section of his "Missa Pange Lingua."

CREDO, MISSA PANGE LINGUA, Josquin des Prez (1445-1521) -- 3:03

RENAISSANCE, REFORMATION, COUNTER-REFORMATION

GLORIA, MISSA PANGE LINGUA, Josquin des Prez (1450-1521) -- 2:36

We have been listening to and considering music of religion and ceremony. Last time we heard music of the Medieval Period which was a time of very great growth in music. Today we will start with music of the Renaissance, then turn our attentions to another great time of growth--the Protestant Reformation and the Catholic counter-reformation.

You have just heard a very beautiful and very characteristic renaissance work--the "Gloria," from the "Missa Pange Lingua," of Josquin des Prez. This mass, written about 1500, combines many of the renaissance style characteristics in such a way that it was one of the great works of that time. Rhythmically it is not yet square (as music will become in the Baroque); it is above all a vocal work and it sings, is highly expressive--it is all melody--every part a beautiful lyrical part of the whole polyphonic structure. Another important point: this is true a cappella choral music, not music for an ensemble of singers with a few instruments to help out. Medieval music usually tried to use timbres which were different in combinations, but renaissance taste favored timbres which were alike, so this is the reason for so much a cappella, or unaccompanied, choral music from the Renaissance. This highly developed music was written just about the time an Italian admiral named Columbus was exploring some barbaric islands way off in the western ocean, and it was only a couple of generations before the great religious upheaval we know as the Reformation.

Josquin's religious music was all written for "the Church"--that is, the Roman Catholic Church, which had split with the Byzantine Church 500 years or so earlier. Most of the composers associated with the "Netherlands School" were writers for the Roman Church, but there were great growing problems within the church.

They broke out in what we call the Protestant reformation. Martin Luther in Germany, Ulrich Zwingli in Switzerland, John Calvin in France, and Thomas Cranmer and King Henry VIII in England--all were outspoken in their demands for reform within the church. The upshot of their demands was that they all led movements which broke away from the church and became separate religious groups known as Lutherans, Calvinists, Presbyterians, Huguenots and Anglicans. Naturally the new religious groups organized their liturgies on the basic format of the Roman ritual, just as it had been patterned after Jewish and Greek liturgies in the early Christian era.

Many musicians and churchmen stayed within the church and worked for reform from within. Two of the major composers who followed this course were Palestrina, whose music has become the model of proper Catholic music, and Palestrina's friend and pupil Tomas Victoria, a Spanish priest and composer. These men were active in the movement known as "counter-reformation," which was essentially a move to reform the church from within and to win back the people lost to the Reformation churches.

Victoria's music follows the patterns begun by Josquin and developed further by Palestrina. He uses the a cappella choir--this is the predominant timbre--and he writes many motets for inclusion in the "proper" of the services. His rhythms are very flexible, subtle, and smooth, and his melodies are very lyrical--they really sing! Victoria's harmonies became very rich because he introduced chromaticism. Listen to this section of his motet, "O Domine Jesu."

O DOMINE JESU, Tomas Victoria (1549-1611) -- 1:45

Claude Le Jeune, who lived in France from 1528-1600, was a French Protestant composer for the Huguenots. His music uses the same techniques as those of the Catholic composers, but for melodies he used chorales from the Huguenot prayer-books, the "Geneva Psalter." Listen to his setting of "Psalm 45"--see if it has any characteristics which you can hear that really make it sound different from Catholic music. In his time, Le Jeune risked his life to write music of this character. If any of you can detect Protestant characteristics which are immediately recognizable, I hope you will let me know. To me the differences are so slight I find it hard to imagine that people could have felt so strongly. Here it is, Claude Le Jeune's "Psalm 45."

PSALM 45, Claude Le Jeune (1528-1600) -- 2:40

Another great composer of this time, and of the counter-reformation group, was Giovanni Gabrieli, whose name you should know by now, almost as well as that of Bach. Gabrieli was the great Venetian composer who took a different approach from the austere, high-minded a cappella style of Palestrina and Victoria. With Gabrieli, the grand concertato of St. Mark's Cathedral was developed into a great musical spectacle which might be used in an awesome religious ceremony or might equally well be used for state political ceremonies. The grand concertato, you may recall, featured choirs of singers and choirs of instruments, performing from opposing parts of the cathedral in majestic and exciting combinations of timbres and textures. This was the aspect of the counter-reformation which attempted to win back the people by awing them with the greatest and the grandest in art, architecture, pomp, splendor and ceremony, of which music was a main ingredient. I will play part of Gabrieli's "Canzon XIV"--a work for three separate choirs of instruments and organs. Listen to his use of rhythms, short motivic melodies, simple straightforward harmonies, and above all, complexity of timbre as he builds an impressive, awesome musical structure.

CANZON XIV, Giovanni Gabrieli (1557-1612) -- 1:45

An English contemporary of Gabrieli was Orlando Gibbons, who was one of the great English contrapuntal writers of madrigals, fantasias, and anthems. The word "anthem" is just the Anglicized form of the Latin "Antiphon," and it was this name "anthem" which the English composers gave to their polyphonic religious works for the new Anglican Church. Gibbons wrote many anthems--in style they use the traditional polyphonic devices of other late renaissance composers, all in the tradition of Josquin. Gibbons, like Josquin, is noted particularly for the lyricism of his melodies, his beautiful harmonies and, above all, for the extreme expressiveness of his music. Listen for these characteristics in Orlando Gibbons' anthem, "O Lord, I Lift My Heart to Thee."

O LORD, I LIFT MY HEART TO THEE, Orlando Gibbons (1583-1625) -- 1:45

The first really important composer of the German reformation was Heinrich Schutz, whose works are not much performed nowadays; therefore, he is not as well known as he should perhaps be. He studied in Venice with Giovanni Gabrieli, then returned to Germany where he introduced Gabrieli's methods but adapted them to German Protestant needs. Schutz also experimented early with opera, but his most important work was in oratorio-like works, which he called "historias." These involved soloists, choruses, and orchestras performing in concertato style, and they told stories of the Passion of Christ on the Cross, etc. Schutz was a strong influence on all later German composers, particularly Bach and Handel. It is Schutz who introduced the Venetian style into the German baroque, which led before long to German domination of the musical world.

I shall play the final scene and chorus from Schutz's "Historia of the Resurrection of Jesus Christ." In it you will hear soloists singing in an ensemble in which the final lessons of the resurrection are enumerated; then the chorus closes the work singing, "Thank God thy Lord who has brought us the victory by Jesus Christ our Lord! Victory!" The historia is in German since it was intended to be understood by the congregation. It was a large-scale, dramatic teaching device for instructing the congregation. In this scene, it is particularly characteristic of the reformation.

HISTORIA OF THE RESURRECTION OF JESUS CHRIST (Final scene and Chorale),
Heinrich Schutz (1632-1687) -- 1:55

During the 17th century, the French musical scene was dominated by Jean-Baptiste Lully who wrote operas and directed the court orchestra and opera. He was occasionally called upon to write religious works for special occasions. Such a work is his "Te Deum," a motet for two choirs and orchestra. This has many elements of Venetian concertato but also has operatic effects as well. This was a distinctly French baroque style of writing, leading more and more toward the effect of concert music using sacred subjects as the text. Listen to the finale of the Lully "Te Deum," written in 1664. See for yourself how the music has assumed dramatic and colorful characteristics which move it a great distance from the style of Palestrina, the model of the appropriate Catholic music for the church.

TE DEUM, FINALE, Jean-Baptiste Lully (1632-1687) -- 2:35

By the time Johann Sebastian Bach became cantor of St. Thomas Church in Leipzig in 1725, the reformation was accomplished and it and the counter-reformation had become historical phenomena. There was still a strong Catholic Church, but by this time there were several strong Protestant denominations, well established, and existing along with the Catholic Church. Their liturgies and their music, as well as their art and architecture, were all modeled on the Catholic patterns from which they had emerged, but some significant differences were apparent. One of the most important was the continuation of Latin as the language of the Catholic Church, while the Protestant churches all used the languages of their people--the vernacular, as it is called.

Bach wrote a tremendous amount of music for the Lutheran Church, including over 250 cantatas for Sunday services. His cantatas are in German and are strongly based on Lutheran chorales. But, in addition to his cantatas, Bach wrote a great Latin Mass, one which was so grand and magnificent musically that it was not thought appropriate for the Catholic service and has not been used in such a way. Instead, it is always performed as a concert work. In this way it takes a giant step in the same direction as the work by Lully, the "Te Deum," which you just heard.

What I am suggesting, then, is that music for the church tended to become too overpoweringly musical and so it became concert music using religious texts and forms. I will go much more into this in the next talk, but I think you should be aware that by the middle of the 18th century--the end of the Baroque--this was the trend. Listen now to the last, grand portion of Bach's great B-minor Mass. This is the "Dona Nobis Pacem."

"DONA NOBIS PACEM," B-MINOR MASS, Johann Sebastian Bach (1685-1750) -- 3:32

CURRENT DEVELOPMENTS IN SACRED MUSIC

"GLORIA," MISSA SOLEMNIS, Ludwig van Beethoven (1770-1827) -- 2:35

We heard how Bach, in his B-minor Mass, had written a religious work which most people felt to be more appropriate to the concert hall than to the church. This was the trend that continued with most of the major composers. Both Mozart and Haydn wrote Masses, some of which were performed in church, but they were really better suited to the concert hall, and that is where they are usually heard now. You have just heard part of the "Gloria" from Beethoven's "Missa Solemnis" or "Solemn Mass." It is, for all practical purposes, a "sacred symphony" in five movements, each an integral part of the mass. There are many polyphonic devices, such as fugues, in the music, but its style fits squarely into that of Beethoven's symphonic music of the latter part of his life. It is classical in structure, going towards the romantic in that it is emotional, dramatic, expressive music, full of an outpouring of Beethoven's emotional turmoil.

Felix Mendelssohn was one of the early Romantic composers who followed Beethoven closely. Mendelssohn wrote much music in a classical style but with many romantic characteristics. His music has generally a classical clarity but much romantic tone color. He wrote two great oratorios, "Elijah" and "St. Paul," both of which are often performed even now. These works can be performed in the church since the subject is religious, but in practice they are almost always performed as concert works, calling as they do for soloists, chorus, and full symphony orchestra. I will play part of the opening chorus and the first chorale from Mendelssohn's "St. Paul." In the chorus you can hear the full concert treatment given to the choruses. The chorale that follows is a Lutheran chorale, or hymn, which is included, as are many others, in "St. Paul." The chorale is typically of the church, the chorus is typical of the concert hall--contrast the two as you hear them, and you'll get an idea of the differences in style.

"ST. PAUL" OPENING CHORUS AND CHORALE, Felix Mendelssohn (1809-1847) -- 3:03

The Requiem Mass, the Mass for the Dead, by Hector Berlioz, is, so far as I know, never performed in church. It calls for soloists, a huge chorus, a very large orchestra, extra brass bands placed in strategic places a la Gabrieli, and several extra percussionists. This is exciting music, and it is also solemn, grand, beautiful, and very, very dramatic. It has certainly grown clear out of the church! This is the section called "Tuba Mirum"--"the trumpet shall sound, summoning all the dead to the seat of judgment." This is arch-romantic treatment of the music by one of the great romantic composers. Listen to how Berlioz uses the romantic style in free rhythms, dramatic melodies, rich, full harmonies, and sumptious textures and timbres. He is working with the same materials for text which were used by Mozart, Palestrina, Ockeghem, Dufay and Machaut--but what a difference!

"TUBA MIRUM," REQUIEM MASS, Hector Berlioz (1803-1869) -- 1:40

Well, the romantics up through the 1900's continued writing sacred music, but much of it was for the concert hall, as you have heard. There were many anthems written and a good many hymns or chorales, but by and large, anthems and hymns really changed very little from what they had been about the time of Bach's death in 1750.

Catholic composers continued to write masses in the Palestrina mould but not as successfully as Palestrina. These works were used in the church and many composers, Catholic and Protestant, wrote large sacred concert works--Masses, Te Deums, and Motets.

Igor Stravinsky, who had upset the musical applecart in the early years of the 20th century, adopted a "neo-classical" style around 1920. He wrote a work called "Symphony of Psalms," in which he uses chorus and orchestra, with psalms being set musically in a symphonic structure. His use of chorus and orchestra parallels that of Bach, Beethoven and Mendelssohn, whose works you have heard; however, there is no pretence that this is church music. Stravinsky simply chose psalms as texts for his choruses and so has written sacred concert music. Here is the beginning of the 1st movement of the "Symphony of Psalms."

SYMPHONY OF PSALMS, Igor Stravinsky (born 1885) -- 2:03

Composers have continued to use sacred texts as subject matter for compositions both for the church and for the concert hall. These works are in a variety of styles, and, of course, success has been variable. One composer who has written for performance in the church is the young British composer, Peter Maxwell Davies, born in 1934. He writes in a clearly atonal style, but he has written music to be performed in church by amateur musicians. It is difficult but performable. He has chosen a Latin text, "O Magnum Mysterium" and set it in a variety of ways. I shall play three short sections for you--the opening, unaccompanied solo, first chorus, and a portion of an instrumental interlude which uses ultramodern techniques in the 12-tone style. Here it is: Peter Maxwell Davies' "O Magnum Mysterium."

"O MAGNUM MYSTERIUM," Peter Maxwell Davies (born 1934) -- 3:03

Some other developments of interest are adaptations to folk music and jazz. The Negro spiritual was an American Negro adaptation of the hymn, and jazz was an outgrowth of it. Folk music has adapted various musical forms to the folk music idiom; this has been true where missionaries have taken the Christian music to other cultures. A vivid example is in the music we consider native Hawaiian--that of the ukelele and steel guitar and "aloha." Actually, that music all grew out of missionary hymns that were taught the natives, and the real native Hawaiian music is primarily percussive, bearing little resemblance to what passes for the real article.

An interesting work is a mass that has been made by Congolese natives who were taught the mass by a Belgian priest. Presumably, they have used the text of the mass but have supplied music and rhythms of their own. It is very rhythmical using much complicated drumming to bring out the rhythm; the melody is quite repetitious and is antiphonal with choirs of men and choirs of boys answering one another. There is no harmony; the timbre is choral with drums and the form follows the text of "Kyrie eleison, Christe eleison, Kyrie eleison," each repeated many times, of course. Listen to it: this is the "Kyrie" from "Missa Luba," a Congolese Mass.

KYRIE, MISSA LUBA, Congolese Mass -- 2:03

Jazz rhythms and style are also being brought into sacred music. The young German composer, Heinz Werner Zimmermann, has written a work he calls "Psalm Concerto," not unlike Stravinsky's "Symphony of Psalms." Zimmermann's Psalm Concerto uses jazz sounds, although it is not really jazz; but listen especially for rhythm and timbre. You'll hear the jazz.

PSALM CONCERTO, Heinz Werner Zimmermann (born 1930) -- 1:32

On May 21, 1965, Vince Guaraldi and his group performed a jazz Mass at Grace Cathedral in San Francisco. There have been several experiments of this kind in the last few years. Perhaps musical taste in the church is at last coming up to date--or at least it is going to move from the music of 1750. In any event, there is a ferment--modern sounds are being heard and not just in the concert hall. Many are now being heard in the church. Listen to the Kyrie from the Jazz Mass; see how the sound of jazz goes with the choir singing Anglican Plainsong.

KYRIE, JAZZ MASS, Vince Guaraldi -- 1:54

Perhaps the greatest Jewish composer of all time is Ernest Bloch, who lived for a time in Berkeley and taught at the University of California. Mr. Bloch felt that there was a need for a Jewish sacred service similar to the Catholic Mass in organization; so he set about writing one. He used various parts of the old testament as his primary sources of textual material, then set about writing a work for solo baritone, or cantor, chorus and large orchestra. This sacred service is performed as a concert work but unlike many concert masses it has often been performed as a sacred work in the Jewish temples.

We will hear the first section for cantor and chorus. It is called "Mah tovu," and means, "How goodly are thy tents, Yaakov, goodly thy dwellings, Israel." It is essentially an opening prayer for the service. As you listen to this, think back if you can to the sound of the Yemenite Jew--a lonely primitive chant. Think also how the chant of the Pre-Christian Jews was incorporated into early Christian music--it grew and grew, finally developing into such works as Bach's B-minor Mass, Beethoven's "Missa Solemnis," and the Berlioz Requiem. It went on through further developments, and now we have Ernest Bloch, a fine 20th century Jewish composer, using all the techniques of music developed over 20 centuries--2000 years--and setting the ancient Jewish texts to music which grew from a Jewish source, 20 centuries ago.

AVODATH HAKODESH, "MAH TOVU," Ernest Bloch (1880-1959) -- 3:05

DATA SHEET 3

General Terms

OCCIDENTAL: Things of the "western" world--Europe, North and South America. Occidental is used in contrast to oriental.

LITURGY: Prescribed forms of worship in the church, for instance, the Mass is the prescribed liturgy in the Catholic church, and this includes the entire form of the mass, the words that are said, the order in which they are said, where they are said, etc. Liturgy can also include the music throughout the service.

LITURGICAL DRAMA: Dramatic presentations of Biblical scenes which were attempted during the 12th century. It was intended that they would fit into the liturgy; they were only partially successful and were not incorporated into the liturgy.

BYZANTINE: The style of Byzantium, which was the Greek portion of the Roman empire, including old Greece and most of present day Turkey. Capital city was Byzantium, renamed Constantinople, renamed Istanbul.

ROMANESQUE: First part of the Medieval Period, roughly 400-1000. Art, architecture, music, etc., all under Roman influence; hence "Romanesque."

GOTHIC: Second part of Medieval Period, roughly 1000-1400. Dominant influence in art, architecture, music, etc., came from the "Gothic" section of Europe--mainly France and Germany.

PROTESTANT REFORMATION: Demands of Lutherans, Calvinists, Anglicans and others for reform in the Catholic church. These groups attempted to build new religions, starting with the pattern of the Catholic church, but instituting all the reforms they demanded. This caused sweeping changes in the liturgy, and particularly in the art and music of the church. Reformation is often dated from 1517, when Martin Luther nailed a list of 95 demands for reform to the door of Wittenberg Cathedral.

COUNTER-REFORMATION: Action of the Catholic Church to meet the demands and the "competition" of the Protestants. Activity in counter-reformation was particularly strong in Italy and Spain, and much of it involved music and art.

-- Musical Terms --

PLAINSONG: Another name for Gregorian Chant. Monophonic, simple, unadorned melody used to chant the Latin text of the liturgy.

ANTIPHON: A type of music in which two or more musical groups or soloists sing "against" each other. For instance: leader, congregation, leader, congregation. Many medieval works were written this way with alternation between the priest and choir of monks.

ANTHEM: English protestant version of "antiphon." Became the typical "concert" number for British church service with trained choir. Congregation sang hymns--choir sang anthems.

ORGANUM: Parallel singing; the very first type of polyphonic music. "Organal" part sang exactly the same thing as the melody part, but interval of a fifth lower. Example:

HOCKETING: Literally "hiccupping" musically. A means of syncopating music by rhythmic stops, repeats of notes.

A CAPPELLA: Unaccompanied choral singing, literally "as for the chapel." "A cappella choir" singing became the great style of singing from Ockeghem on; prior to that, each part had usually been sung by a single singer.

-- Composers to Know --

John Dunstable	1390? - 1453
Johannes Ockeghem	1430 - 1495
Michael Praetorius	1571 - 1621
Dietrich Buxtehude	1632 - 1707
Henry Purcell	1658 - 1695

ABSTRACT INSTRUMENTAL FORMS IN THE BAROQUE

RONDE AND SALTARELLO, Tielman Susato (16th century) -- 1:43

The music we just heard was dance music from sometime in the late 15th century. It was published by a Dutch music printer named Tielman Susato, who lived in the early 16th century. Susato started off as a printer of music, one of the very earliest ones, and he collected and published many dances of the 15th and 16th centuries under his own name.

Now, those dances are pretty simple musically. The rhythms are very straightforward and serve the purpose of making the music move and sound lively, and, most importantly, the rhythms set off the points where the feet are supposed to move. This was dance music whose sole purpose was to be danced to.

So far as we know, dance music was about the only music of the entire Medieval and Renaissance Periods that did not depend on words. All of the religious music and almost all secular music was vocal--that is, it was sung. It was made of words set to music. Since it had words, it told some sort of story or had some specific meaning.

Nowadays much of the music that we hear is purely instrumental--no words, no particular story or meaning. Music of that type we call "abstract"--that is, it exists in its own nature independent of any specific meaning other than its own musical meaning. Art has gone the same way, so that we now see many abstract paintings or sculptures which do not represent any real scene, person, or object; they simply represent themselves--they are "abstract." So, we have gone from the medieval and renaissance times in which nearly every art form was tied to a specific meaning, to our present times in which there is much abstraction in both music and art. We are going to survey this general trend toward abstraction.

We started off by hearing a renaissance band playing what is perhaps the closest to abstract music of this time--dance music. While it served a purpose, it didn't have any words or story, so it comes close to the idea of abstraction.

Andrea Gabrieli, uncle of the famous Giovanni Gabrieli you have heard so much about already, was a composer who came along at the end of the Renaissance. He was born in 1510, died in 1586, and was director of music at St. Mark's Cathedral in Venice before his talented nephew, Giovanni. He wrote many works that led to Giovanni's works for grand concertato. One such work was in a form called "ricercar" which meant "to search out the tune," and it was a sort of form of the vocal motet. It was the ancestor of what became the principal baroque large form--the fugue. It was polyphonic, and the melodies tended to be modal. In the ricercar which I am going to play for you, the timbre is that of stringed instruments, in this case, a quartet of viols. Listen to it and see how the composer is "searching out" his melody. This is Andrea Gabrieli's "Ricercar IX."

RICERCAR IX, Andrea Gabrieli (1510-1586) -- 2:09

Renaissance dance forms were carried into the early Baroque Period as the principal instrumental works. Gradually they were mixed with instrumental works which had imitated vocal ones, such as the Ricercar you have just heard; but it was the renaissance dances which really led to much of our instrumental music.

The keyboard composers--those writing for organ and harpsichord--made a large contribution to the developing abstraction of music. One of the principal composers of keyboard music of the early Baroque was the Italian, Girolamo Frescobaldi. He wrote many works including toccatas, fantasias, ricercars, passacaglias, and other types of works. He had much influence on all the later keyboard composers.

I am going to play for you a piece of Frescobaldi's for the harpsichord. This is written in the form of a gailliard, which was a very popular dance during that time. The gailliard was a dance form brought into the early Baroque Period from the Renaissance. Its rhythm and style are very characteristic--just as recognizable as those of the minuet, waltz, polka, or any other dances.

GAILLIARD, Girolamo Frescobaldi (1586-1634) -- 0:55

Giovanni Gabrieli and his contemporaries wrote many pieces they called "sonatas"--this name came from the Latin word "sonare," meaning "to sound." They called their works "sonatas" to show by the title that they were intended strictly as instrumental works; that is, "to be played rather than sung." The word "sonata" was carried on from this rather simple meaning, and the name is used over a wide range of time and forms, as you have already heard

Domenico Scarlatti, the great harpsichord composer who lived at the end of the Baroque Period, did much to develop form in pieces for harpsichord. He wrote many sonatas for the harpsichord, mainly in a simple ABABA form, but he did develop the concept of using two contrasting themes A and B and of a change in key. Listen to his "Sonata in D Major," and see if you can recognize the "A" theme, the "B" theme and the general form as he goes through the ABABA pattern.

SONATA IN D MAJOR, Domenico Scarlatti (1685-1757) -- 2:13

The ricercar had led to the form called fugue, which used imitation of a single theme, as in rounds such as "Three Blind Mice" or "Row, Row, Row Your Boat," except that in fugue the theme was introduced each time in a different key, and it continued to develop melodically; however, the problem of the fugue was that it was based on one idea only, and so there was not the possibility of a dramatic conflict of emotional tensions between the different ideas as in the sonata. You heard in the Scarlatti sonata how the "B" theme was of a slightly different character and in a different key. This principle was much elaborated by later composers and made it possible for the sonata to be a very dramatic work even though it was abstract. The fugue, on the other hand, had the limitation of being based on a single theme. It was really the great form of the Baroque Period, but the developing sonata form eventually overcame it.

Johann Sebastian Bach, whose greatness lay in all fields of music except opera, wrote many of the greatest works for organ. Many of these contained wonderfully, intricately designed fugues. Listen to the exposition section of his great "C Major Fugue." You can hear the four separate entries of the theme, each time at a lower pitch, as he starts to develop the rich polyphonic texture of this wonder fugue.

FUGUE IN C MAJOR, Johann Sebastian Bach -- 1:32

Bach's contemporary, Telemann, wrote much "chamber music"--abstract music for small ensembles in which he combined dance forms and the "learned" forms, such as the fugue. In Telemann's music the basso continuo is much in evidence, and the baroque style of ornamentation is also much used. By this time abstract music had become a very real body of music which was much enjoyed by the people for whom it was written--the nobility. Since it was performed in their dining halls or large chambers--it was called "chamber music"--it was not intended as concert music for large gatherings in concert halls. I will play the "Siciliana," a dance movement, from Telemann's "Suite in G Major" for soprano recorder and basso continuo. Listen to the way the continuo functions and particularly to the ornamentation of the melodic lines.

SICILIANA, PARTITA IN G MAJOR, Georg Phillip Telemann (1681-1767) -- 1:16

Giovanni Battista Sammartini was one of the late baroque composers whose chamber music used the sonata principle in a manner similar to that of Domenico Scarlatti and his harpsichord sonatas. Sammartini used the principle of two themes and of a contrasting key, and, in addition, he usually constructed his sonatas in three or four movements in the manner of the sonatas of Corelli, about which we will hear more in a minute. Here is a trio sonata by Sammartini; this is the first movement, an allegro, or fast movement. Listen for the contrast between melodies and for the key changes. See if you can hear the differences between each section in this sonata for two recorders and harpsichord.

TRIO SONATA IN F MAJOR, Giovanni Battista Sammartini (1701-1773) -- 1:42

The man who probably developed sonata form most in the Baroque Period was the Italian composer and violinist, Arcangelo Corelli, who wrote "sonatas da chiesa," or "church sonatas," and "sonatas da camera," or "chamber sonatas." The main differences, aside from where they were to be performed, were that the chamber sonatas were actually dance suites, or collections of four or more dance pieces for solo instrument (usually violin) and continuo. The "church sonata" was almost always four pieces in the order of slow, fast, slow, fast, each of the four pieces being of the "learned" type, such as the fugue. They were almost always polyphonic. Corelli also wrote several "concerti grossi" which were sonatas for two or more solo instruments accompanied by string orchestra and harpsichord or organ. These "concerti grossi" of Corelli's were the forerunners of our later solo concertos and symphonies. Corelli's importance to the development of abstract music in sonata form is very great, and every composer in the next hundred years after him was in his debt. Listen to the opening of his so-called "Christmas Concerto." You will hear first the orchestra stating the slow movement theme, then the solo group, accompanied by basso continuo and orchestra strings, beginning the second movement--the Allegro.

CONCERTO GROSSO #8 IN G MINOR, Arcangelo Corelli (1653-1713) -- 2:00

Another important developer of the concerto was Antonio Vivaldi whose influence, especially on Bach, was very great. Vivaldi wrote over 600 concertos using as soloists nearly every instrument known in his day. Listen to the beginning of his "Concerto in A Major for Viola d'Amore and Orchestra."

CONCERTO IN A MAJOR, Antonio Vivaldi (1676-1741) -- 2:00

Francois Couperin, also a contemporary of Bach, was court composer to Louis XIV, king of France (and probably the most powerful, absolute monarch of any age since the Dark Ages). Couperin wrote much for the harpsichord, but he also wrote many works for the court orchestra of strings, and his works were usually in the style of dance suites, often with descriptive names, but still abstract in their actual content. Here is the allemande from his suite, "The Nations." An allemande was supposedly a German dance, but this is very French in style, heavily ornamented.

ALLEMANDE, "LES NATIONS," Francois Couperin (1668-1773) -- 1:35

Large concert works grew out of such pieces as Couperin's dance suites and the concertos of Corelli and Vivaldi. George Frederick Handel wrote two of the first large concert works, both for outdoor performance, since there still were no large concert halls in the early 18th century. One of these works of Handel's, "The Royal Fireworks Music," was written to be performed by a very large wind band while fireworks were being shot off...the whole to celebrate the signing of a peace treaty. Using the form of the dance suite and the concerto, Handel wrote these wonderful works which were a great success in his day and are performed with as great success even today. Here for our final number from "The Royal Fireworks Music" by George Frederick Handel is "The Rejoicing."

"LA REJOUISANCE," ROYAL FIREWORKS MUSIC, G.F. Handel (1685-1759) -- 2:20

CLASSICISM AND SONATA FORM
TREND TOWARD ABSTRACTION

SYMPHONY #1, D MAJOR, Karl Philip Emmanuel Bach (1714-1788) -- 2:07

We heard, in the last lecture, how sonata form evolved during the Baroque. It took two main tracks, the concerto and the sonata, both types using sonata form, which was based on the principle of contrast between themes and key centers. Some concertos, especially of Vivaldi, seemed to be for orchestra as a whole, not for any particular soloists.

The term "sinfonia" had been used as a name for instrumental interludes in vocal works since the 16th century, and some composers called first movements in suites "sinfonias"--overtures to operas, oratorios, and cantatas were often called "sinfonia." This name was used freely by the generation of Bach's sons, who were important composers themselves, and in the very next generation, that of Haydn, "symphony" became pretty much the standard name of the sonata for orchestra.

You have just heard the opening of the "Symphony in D Major" by Karl Philip Emmanuel Bach, who was probably the most influential of Bach's sons. With him, the elements of sonata form are crystallized and clarified. It is the sonata form of Karl Philip Emmanuel Bach which Haydn took for his model, so it can really be said to be the guiding formal structure of the Classical Period.

Another composer who, like Karl Philip Emmanuel Bach, clarified and established sonata form, was Johann Stamitz, court composer and conductor at Mannheim in Germany. Stamitz wrote many orchestral works in sonata form, calling some symphonies, some concertos, and some he called orchestral quartets, or orchestral trios. Almost all were in four movements: fast, slow, minuet, fast, with the first movement in "Sonata Form." I will play the fourth movement of Stamitz's "Orchestral Trio in A Major." If you listen closely, you will hear that the harpsichord is still there, though it does not seem to fulfill a very important place as it did in true basso continuo.

4TH MOVEMENT, ORCHESTRAL TRIO IN A MAJOR, Johann Stamitz (1717-1757) -- 1:42

Joseph Haydn, using sonata form as it was developed by Emmanuel Bach and Johann Stamitz, perfected classical sonata form in the process of writing over one hundred symphonies, over twenty concertos, forty string quartets, forty string trios and numerous other chamber works, most of them in sonata form. He did this during a long, productive life, writing important works from about 1735 until his death in 1809. A thorough study of the organization of a Haydn symphony, piano sonata or string quartet is probably the best way to understand classical sonata form, and you will be given a chance to hear a complete analysis of the Haydn Symphony #102, the beginning of which I will play now. This was written around 1800; it represents the fully developed style and structure.

1ST MOVEMENT EXPOSITION, SYMPHONY #102, B-FLAT MAJOR, Joseph Haydn (1732-1809) -- 4:05

Closely associated with Haydn (his pupil for a short time) was the great musical genius, Wolfgang Amadeus Mozart who also wrote many important works in sonata form. Mozart wrote piano sonatas, violin sonatas, string trios, quartets, concertos for violin, flute, clarinet, bassoon, and piano; and he wrote forty-one symphonies, plus a group of works organized like symphonies but somewhat "lighter" and more of the entertainment type. These he called "cassations," "nocturnes" or "serenades." They all used sonata form and were just as much abstract music as the purest sonata. One of his most famous serenades is the one called "Eine Kleine Nachtmusik"--"A Little Nightmusic." I will play the second movement of it; this is the traditional slow movement. Mozart marks it "Romanza," meaning it should be played in a very song-like style.

ROMANZA, "EINE KLEINE NACHTMUSIK," Wolfgang Amadeus Mozart (1756-1791) -- 2:05

The classical sonata consists of four movements, the first a fast one, second slow, third minuet, and the fourth fast. The first movement is usually specifically in sonata form, which will be discussed seaprately, and the last movement may be in sonata or rondo form. You have heard the first movement of a Haydn Symphony, the second movement of a Mozart Serenade. Now I will play the third movement, the Minuet, from Ludwig van Beethoven's Symphony #1 in C Major. This symphony was written while Beethoven was still studying composition with Haydn. It sounds very much like Haydn, though it already shows certain signs that were clearly Beethoven's. Listen to it carefully. The structure of a minuet is quite easy to follow because it is a dance. The rhythm is always a triple rhythm, and melodies are more folk song like since it is a dance.

MINUET, SYMPHONY #1, C MAJOR, Ludwig van Beethoven (1770-1827) -- 3:15

The baroque concerto grosso was developed during the Classical Period into the solo concerto with orchestral accompaniment. This was a large scale sonata for solo and orchestra in three movements: fast, slow, fast. In the concerto, the minuet was omitted.

Towards the end of Haydn's life, the valve trumpet was invented. Haydn wrote a concerto for this instrument, one which took advantage of the valve trumpet's ability to play scale passages with agility which had been impossible before. This work still remains as perhaps the greatest of the trumpet concertos. Here is the third movement of Haydn's "Concerto for Trumpet."

3RD MOVEMENT, CONCERTO FOR TRUMPET, Joseph Haydn -- 2:03

We have been hearing, in this lecture, only works for orchestra. You should not conclude from this that orchestral works were the only ones written in sonata form. Far from it. This was the great age of string quartets and trios, a great time of piano sonatas. In fact, this was the time when the piano emerged as an important instrument totally replacing the harpsichord. However, the greatest part of the instrumental music of the Classical Period was cast in sonata form, whether it was written for solo piano or in the form of the concerto. It was still usually a sonata, and this was an abstract type of music.

Mozart wrote some twenty-five piano concertos, all for his own performance in public. These all demonstrate very clearly the sonata principle of organization. In addition they show how quickly the piano had developed as a solo instrument--in the space of thirty years or so. Here is part of the third movement of Mozart's "Piano Concerto #23 in A Major."

3RD MOVEMENT, PIANO CONCERTO #23, Wolfgang Amadeus Mozart -- 2:20

We must avoid the mistake of imagising that abstract music, particularly as it is represented by the various kinds of sonata, was the only kind of music. It was not. You should recall that religious music was written by all the composers mentioned so far, and opera was very much a "going concern," so descriptive music, or music with words, was still much with us. But "abstract music" found its greatest growth, and was perhaps most at home, in the Classical Period where form was the biggest concern of everyone. The idea of clarity, organization, coherence--this was the heart of classical aesthetics, and the sonata fit this ideal perfectly. Interestingly enough, while music had "gone abstract," starting in the Baroque, art waited until the 20th century to do the same thing--but more about that later.

Now for our final number, let's hear the Finale of Beethoven's "Violin Concerto." This was written when Beethoven was at the height of his powers as a composer, and it represents the most fully developed style of the classical concerto; by this time, too, violin playing had become ever more advanced, so the demands on the soloist are much greater.

FINALE, VIOLIN CONCERTO, Ludwig van Beethoven -- 4:25

REVOLUTION AND ROMANTICISM
TREND TOWARD ABSTRACTION

"DEATH AND THE MAIDEN," QUARTET, Franz Schubert (1797-1828) -- 2:25

The piece you just heard was a string quartet written by Franz Schubert, one of the early romantic composers. Schubert used sonata form in much of his work, and this string quartet is no exception. It got its name, "Death and the Maiden," from the fact that the second movement uses as its theme the melody of a song of Schubert's called "Death and the Maiden." The whole dramatic tone of the quartet fits the mood of the song, and in a way, this piece points the way to a strong tendency of the 19th century. This time we know as the Romantic Period--the time of revolution and romanticism. The tendency I speak of is that of writing abstract music, such as a string quartet, but giving it a programmatic or descriptive character, by giving it meaningful titles, and by attempting to be descriptive of moods within the music. Ultimately this tendency to use abstract music in a descriptive manner led to a new type of music, the symphonic poem, which we will hear more about when we discuss "program music."

Many composers wrote music which was technically still classical; it followed classical structure in the sonata form and adhered to the clarity and order of classicism. Felix Mendelssohn was one of those, like Schubert. His music was romantic, largely in that it was often descriptive in mood, as in his "Italian Symphony." But Mendelssohn was very classical in his use of sonata form. I will play the Scherzo from his String Octet for you. This is a work for double string quartet--eight separate parts. Rhythms are strong but complex, not always so easy to count in even patterns. The music is very melodic and seems to practically dance, it is so bubbly and alive.

SCHERZO, OCTET FOR STRINGS, Felix Mendelssohn (1809-1847) -- 2:00

One of the most romantic of the composers of this time was the Frenchman, Hector Berlioz. You have already heard parts of his "Symphonie Fantastique." In a moment I shall play another section of it. The thing you must know, though, is that in this work Berlioz is writing a symphony, true enough, and a symphony, as we discovered earlier, is a sonata for orchestra --an abstract piece of music. Berlioz's "Symphonie Fantastique" is in five movements: first movement, "Reveries, Passions"; second movement, "A Ball"; third movement, "Scenes in the Country"; fourth movement, "March to the Scaffold"; fifth movement, "Dream of a Witches Sabbath." Now, that gets pretty descriptive, and so does the music. Given the title of the movement, one's imagination can supply much of the detail. Is this abstract music then? On the other hand, without the title, it might be difficult to guess what the music is about. Well, listen to the second movement. See if you can guess what it is about, just by hearing it.

2ND MOVEMENT, SYMPHONIE FANTASTIQUE, Hector Berlioz (1803-1869) -- 2:15

If you guessed that that was the music for a ball, you were right. Berlioz was describing a ball (a dance) musically--not too hard to do since dance music is such an important part of a ball. Other types of musical description are often somewhat harder; however, this problem of musical description is just what we are up against. As soon as music gets descriptive, it certainly loses some of its quality of "abstractness." All during the 19th century there was a constant pull between musical abstraction and the tendency toward descriptiveness which was so characteristic of the Romantic Period.

The music of the 19th century is music expressive of the imaginations of people who were involved in political, social and industrial revolution, and much of the music was used by the composer to express his own feelings in a personal, revolutionary, protesting sense. Beethoven had begun this, and it was carried on by most composers in one way or another throughout this whole period of romanticism.

Johannes Brahms was a German composer who wrote most of his music after 1850. Most of the political revolution in Europe was over by then. Brahms used classical forms, particularly the sonata, in many of his works. He wrote four great symphonies, a few chamber works, three or four marvelous concertos and a number of works for keyboard instruments, particularly the piano. In all of these his use of form is very classical, although on a very grand scale. He is quite the romantic composer in his use of complex cross-rhythmic devices, in his orchestration and in the extreme expressiveness of his music. Sometimes he is called a "classical-romantic" because he blends both manners so well. He is also called a "major-minor" composer because his music goes back and forth so freely between the major and the minor modes. His harmonies are very rich and full, quite romantic. Listen to this fragment of his quintet for clarinet and string quartet. See how this is abstract music but very expressive of itself.

CLARINET QUINTET, Johannes Brahms (1833-1897) -- 2:15

Brahms' first symphony was written when he was 42 years old, old as composers go, but by this time he had written many lesser works. His first symphony was a mature work, not a "student piece," and it was classical in the formal sense but filled to the brim with lovely, noble melodies, beautiful, rich harmonies and the powerful rhythmic drive that is so much a part of the music of Brahms. This music is abstract, "pure music," yet many people have felt that it expresses the noblest aspirations of man. Listen to the main theme in the finale of Brahms' "1st Symphony." See for yourself--it doesn't actually describe anything. It is abstract; yet, see if it does not seem to express some message to you.

FINALE, SYMPHONY #1 IN C MINOR, Johannes Brahms -- 2:15

Another aspect of the 19th century, this age of revolution and romanticism, was the growing spirit of nationalism. Until the middle of the 19th century, Europe was a hodgepodge of little countries, especially in Italy and Germany. A long series of wars had meant changing rulers and changing nationalities for a long time. Now, in line with the romantic discovery that every individual was important, a pride in the nationality of one's birth became a great concern of artists, musicians, and writers. Musicians attempted to write music that sounded like the music of their own country, so we had the writing and performing of such nationalistic music, especially in the emerging nations of Europe.

Anton Dvorak was the great composer of Bohemia (now a part of Czechoslovakia). Dvorak really wrote very much like Brahms, but he used Bohemian folk songs and rhythms wherever he could as thematic material. This was often the way the nationalistic composers worked. Dvorak wrote symphonies, concertos, chamber music, as well as songs, operas and religious works. His "abstract music," that for instruments, and using sonata form, is still quite nationalistic because of the use of Bohemian folk songs in his melodies and rhythms. I will play the first movement of his Serenade in D minor. Listen to it and see if you can hear the sound of folk music in it.

1ST MOVEMENT, SERENADE IN D MINOR, Anton Dvorak (1841-1904) -- 2:15

Cesar Franck was a French organist and composer who combined classicism and romanticism, much like Brahms. His melodies and harmonies are very chromatic--the music is quite romantic sounding--yet Franck uses form in a very classical manner. His orchestral music, while highly expressive, remains abstract. This is the second movement from the Symphony in D Minor by the French composer, Cesar Franck.

ALLEGRETTO, SYMPHONY IN D MINOR, Cesar Franck (1822-1890) -- 2:15

The piano had emerged as the queen of instruments during the classical period with both Mozart and Beethoven. There was a very large body of music for piano, especially sonatas, written by them and by subsequent composers.

During the 19th century there were several pianists who did much to make the place of the piano even more secure. Perhaps the greatest of these was Frederick Chopin who lived from 1810-1849. Chopin was Polish but moved to France where he lived out his rather short, tragic life. He wrote many works for piano alone, mainly short works--not in sonata form. He called them preludes, nocturnes, ballades, mazurkas, polonaises and etudes. Nearly everything he wrote was terribly romantic in content and style, yet it was all abstract. Its meaning was a purely musical meaning. Here is an example: this is Chopin's "Ballade #3 in A-flat Major."

BALLADE IN A-FLAT MAJOR, Frederick Chopin (1810-1849) -- 1:55

The great Russian composer, Peter Tchaikovsky, was a romantic composer in every sense, yet much of his music used classical, abstract forms. He is famous for his symphonies, and especially for his "Piano Concerto #1," which was even plundered by our "pop-tune" writers and re-written as a hit tune called "Tonight We Love."

Tchaikovsky poured out his emotions into his music. He was very nationalistic, and he filled his music full of the protest of his own nature; yet, romantic as his music is, it retains in its abstract form, purely musical meaning--not descriptive or textual meaning.

We will close today with the finale of Tchaikovsky's "Piano Concerto #2." See how he demands technical feats from the pianist that are almost impossible, and he uses a very large orchestra, played off against the piano in what is almost a contest between soloist and orchestra--all this in order to express, abstractly, the bursting emotions he poured into his music. Here it is, the Finale of Tchaikovsky's "Piano Concerto #2."

FINALE, PIANO CONCERTO #2, Peter Tchaikovsky (1840-1893) -- 2:50

20TH CENTURY ABSTRACT MUSIC

SYMPHONY #2 IN D, Jean Sibelius (1865-1957) -- 2:17

Today we will consider 20th century abstract music of which there is quite a bit, even when we exclude the large body of experimental music which we will examine separately. The piece you just heard was by the Finnish composer, Jean Sibelius, who died in 1957. Many of the 20th century composers, including Sibelius, wrote programmatic music of various sorts, but almost all of them still turned to the symphony or the concerto--both abstract forms--for some of their greatest works. Sibelius had grown up in the lifetime of Brahms and Tchaikovsky, and his music was originally very similar to theirs. He is regarded as one of the important nationalist composers, though he rarely used Finnish folkmusic as his thematic material.

Another important composer of abstract music in the early 20th century was Gustave Mahler. Mahler, however, blended and tempered his use of abstraction in the symphonic form because in some of his symphonic works, he introduced singers and with them song texts. So, his symphonies are combinations of song texts and abstract music. I will play for you the 3rd movement, marked "Burleske," of Mahler's "Symphony #9 in D Major." Listen to his harmonies and the timbre of his orchestra. Compare it in your mind to the clarity and simplicity of the Haydn Symphony, as an example.

BURLESKE, SYMPHONY #9, Gustave Mahler (1860-1911) -- 2:02

The greatest symphony composer of the Russians during the 19th century was Tchaikovsky. There was a strong group of nationalist Russian composers toward the turn of the century--most of them, however, wrote music that was mainly programmatic, not abstract. Tchaikovsky was the principle exception to this.

The 20th century has seen the strong continuation of the school of Russian composers with such men as Serge Prokofiev, Aram Khatchaturian, Tikhon Krennikov, Dmitri Kabalevsky and Dmitri Shostakovitch. The last one, Shostakovich, has emerged as the principal composer of the Soviet Union today, and he has written many works, including 13 symphonies, several concertos, operas, and much chamber music. Many of his works are abstract, as most of his symphonies are. He has continued to use symphonic forms as they have developed and descended from classical usage, but of course, his use of the elements of music--rhythm, melody, harmony and timbre--is very 20th century. Listen to the 4th movement of the "Symphony #5"; this is by Dmitri Shostakovitch.

4TH MOVEMENT, SYMPHONY #5, Dmitri Shostakovitch (born 1906) -- 2:02

Along about 1875 the artistic movement known as "impressionism" began in France. Musicians took up the movement enthusiastically. Their guiding principle was to try to convey by musical terms an impression of a scene or happening but not to be literally descriptive. Now, the music of impressionism was certainly not abstract. It was descriptive, even if the description was not intended to be realistic. The use of impressionist musical devices caused certain musical developments, however, particularly in melody, harmony and timbre. These new impressionist techniques were used also by non-impressionist composers who liked the sounds they heard, even if they didn't subscribe to impressionist ideals.

The leader of the musical impressionists was Claude Debussy who wrote much descriptive music in the impressionist style; but toward the end of his life, from about 1910-1918, he ben to write abstract music using classical form--specifically the sonata. His abstract music, naturally enough, uses much of the impressionist style, including the harmonies, the whole tone scales and the beautiful, coloristic timbres Debussy had discovered. I will play for you the beginning of the first movement of Claude Debussy's "Sonata for Flute, Viola and Harp." This is abstract, impressionist music.

1ST MOVEMENT, SONATA FOR FLUTE, VIOLA AND HARP, Claude Debussy (1862-1918) -- 2:15

Igor Stravinsky, who is perhaps the great composer of our century, has written many descriptive and programmatic works, but in addition, he has written a substantial number of abstract works using traditional forms, such as the symphony, concerto and sonata. He also has written a number of short abstract works with titles of his own devising. One of these is the piece I will play next for you. It is from his "Duo Concertante" for Violin and Piano. Stravinsky calls it "Eclogue 1."

ECLOGUE 1, DUO CONCERTANTE, Igor Stravinsky (born 1885) -- 2:15

The atonal composers wrote many abstract works, although many of their compositions were expressionistic works, using songs and dramatic situations. Arnold Schonberg was the leader of the atonal school, and he, perhaps more than those who followed him, tended to use neo-classical forms and to write abstract music for which atonality is well suited since its lack of a single tonal center puts a big demand on design. Schonberg's "Piece for Piano," opus 33a, is a good example of his atonal music in an abstract context.

PIECE FOR PIANO, OP 33a, Arnold Schonberg (1874-1951) -- 2:04

Alban Berg, the Austrian expressionist composer, was one of Schonberg's pupils. He is best known for his operas "Wozzeck" and "Lulu" which are certainly not abstract, though they are surrealist; but he did write some abstract works, including a very great violin concerto which combines tonality and atonality, all cast in the traditional form of the violin concerto. This is a lineal descendant of the Corelli Concerti Grossi, the Beethoven Violin Concerto and the romantic concertos of Mendelssohn, Brahms, and Tchaikovsky; but it uses atonality as its harmonic and melodic bases. This is Alban Berg's Violin Concerto.

VIOLIN CONCERTO, Alban Berg (1885-1935) -- 2:00

The piano concerto was one of the principal solo forms from the time of Haydn and Mozart continuing the line begun with the harpsichord concertos of Bach. In the last lecture you heard, as the final number, the Tchaikovsky 2nd Piano Concerto. Important ones written since then include two by Maurice Ravel, four by Rachmaninoff, three or four by the Russians, Prokofiev and Shostakovitch, the Stravinsky concerto, of which you heard a part in an earlier lecture, and several by American composers including Aaron Copland and George Gershwin.

The Gershwin concerto is particularly interesting because it, like the others, uses the traditional form of the concerto, but it combines many elements of American jazz with regular symphonic techniques. Gershwin was one of America's most successful composers of popular tunes; some of his other large works are the folk opera, "Porgy and Bess," the "Rhapsody in Blue" and "An American in Paris." Listen now to how George Gershwin combined American jazz with the piano concerto in his Concerto in F.

PIANO CONCERTO IN F, George Gershwin (1898-1937) -- 3:20

Through the last four lectures, we have listened to abstract music; that is, music with a meaning which is a purely musical meaning. I believe that you will agree that most of it has been associated with structure, specifically, the sonata. From the classical period on, we have had solo sonatas, string quartets or trios, concertos and symphonies--all organized on the sonata principle and all abstract. There are other forms of abstract music, but the great body of abstract music is really associated with the sonata. So, we have had in music an abstract art since the middle of the 18th century. Perhaps this is because music, as a language, tends to be more abstract than visual art, in any case. Visual art and sculpture began "going abstract" about 1900, and so, too, in a limited sense, did literature with the symbolist poets and such novelists as Kafka and James Joyce.

In our next unit, we will survey "the other side of the coin"; that is, the descriptive and programmatic in music especially as it developed in the 19th century.

Now, for our final number, a real abstract piece, let's hear a work by the Hungarian composer, Bela Bartok, who died in New York, in 1945. This work was completed just a couple of years before Bartok died. It is a concerto but not a concerto for any one solo instrument; rather, it is a concerto for the entire orchestra with brilliant solo passages going to first one section, then another. This is from the first movement of Bela Bartok's "Concerto for Orchestra."

1ST MOVEMENT, CONCERTO FOR ORCHESTRA, Bela Bartok (1881-1945) -- 3:55

DATA SHEET 4

ABSTRACT MUSIC: Music without any attempt to follow sounds of nature or of human life, no attempt to follow a scheme of emotions dictated by a story or poem or picture. Music with strictly musical meaning.

PROGRAMMATIC MUSIC: Music which attempts to follow some sort of a descriptive scheme; may be an outline of a story or may be descriptive of nature. It does tell a story.

RICERCAR: Polyphonic music for instruments. A form much used especially in the early Baroque. Used several short themes, each repeated canonically. Ricercar means "to search out.".

FUGUE: The great polyphonic form which developed from the ricercar. Fugues were often in three or four voices; the same subject was used by each voice, but each voice began in a different key; a forerunner of the principle of changing key in the sonata. Fugue was the great polyphonic form of the Baroque.

TOCCATA: Originally an improvisational type of piece played at the keyboard of organ or harpsichord. Frequently preceded a large fugue. Usually involved fast runs, much display of technique.

FANTASIA: Related to the ricercar, fantasias were written for organ and harpsichord, but primarily for consorts of viols.

PASSACAGLIA: Originally a dance form; in the Baroque, the passacaglia became a variation form, in that the same theme, usually eight measures long, was repeated over and over again with constantly changing counterpoint. In essence, the passacaglia is used by 12-tone composers and also by jazz groups.

MOVEMENT: One section of a sonata, concerto or symphony. Name comes from nature of the movement of the music in the particular section: fast, slow, moderate, etc.

SONATA DA CHIESA: Italian for "church sonata"; the four movement kind of sonata written by Corelli and his contemporaries. This kind used polyphonic forms.

SONATA DA CAMERA: Italian for "chamber sonata"; sonatas written for entertainment, in the nobleman's chambers. These were really dance suites.

DANCE SUITE: Group of dance forms collected together into one piece. Example: allemande, courante, bourree, gavotte, gigue.

CONCERTO GROSSO: A sonata, either "da chiesa" or "da camera" for two or more soloists with accompaniment of strings and continuo.

SINFONIA: Originally the little instrumental interludes between sections of vocal music in motets. By the Baroque, sinfonias were the opening pieces in operas or cantatas, eventually becoming "overtures," and where the overture was played separately, the name sinfonia was changed to "symphony."

CASSATION: Type of piece like a light symphony but with two or three extra movements. Mozart was the main composer of these.

SERENADE: Similar to cassation. Symphony-like pieces of a light, entertaining nature. Cassations usually had more wind players than serenades because cassations were played outdoors in the "gasse"--a little alleyway outside the courtroom. Serenades often had only strings and were usually played indoors when it was more quiet.

RONDO FORM: In its simplest form, rondo is ABABA; however, it has been doctored up until it can rival the sonata form for complexity; in fact, there is a "sonata-rondo" form which was developed during the Romantic Period. Remember primarily it is ABABA.

-- Time Chart --

1500.	Andrea Gabrieli (1510-1586)	High Renaissance	1500
	*Girolamo Frescobaldi		
1600.	Arcangelo Corelli (1653-1713)	Baroque	1600
	*Antonio Vivaldi		
	Francois Couperin (1668-1733)		
	*Domenico Scarlatti		
	Georg Phillip Telemann (1681-1767)		
1700.	Giovanni Battista Sammartini (1701-1773)	Pre-Classical	1700
	Karl Philip Emmanuel Bach (1714-1757)	Pre-Classical	
	Johann Stamitz (1717-1757)	Pre-Classical	
	*Joseph Haydn	Classical	
	*Wolfgang Amadeus Mozart	Classical	
	*Ludwig van Beethoven	Classical-Romantic	
1800.	*Franz Schubert	Romantic	1800
	*Hector Berlioz	Romantic	
	Felix Mendelssohn (1809-1847)	Romantic	
	Frederick Chopin (1810-1849)	Romantic	
	*Johannes Brahms	Romantic	
	*Peter Tchaikovsky	Romantic Nationalist	
	Cesar Franck (1822-1890)	Romantic	
	Anton Dvorak (1841-1904)	Romantic Nationalist	
1850.	Gustave Mahler (1860-1911)	Romantic	1850
	Jean Sibelius (1865-1957)	Romantic Nationalist	
	*Claude Debussy	Impressionist	
	*Arnold Schonberg	Atonal Expressionist	
	Bela Bartok (1881-1945)	Eclectic Nationalist	
	*Alban Berg	Atonal Expressionist	
	*Igor Stravinsky	Expressionist, Neo-Classicist, Atonalist	
	George Gershwin (1898-1945)	"Pop" Tunes, Musicals, Nationalist	

1900..Dmitri Shostakovitch (1906--)..............Eclectic Nationalist...1900

*Listed with dates on a previous data sheet.

PROGRAM MUSIC IN THE CONCERT HALL

MINUET FROM "A MUSICAL JOKE," Wolfgang Amadeus Mozart (1756-1791) -- 1:25

You have just heard the Minuet from Mozart's Serenade called "A Musical Joke." This was program music; that is, it tells a story, in this case a story of village musicians who take themselves very seriously, but whose music is full of mistakes (in this case, Mozart wrote the mistakes in!).

Well, for this lecture and the next we will deal with the problem of program music--music that tells some kind of a story--that has a program. Now, that is just the opposite of what we have been studying--abstract music, which was music without a story or program. Now, how can music tell a story; have a program? I think there are at least four ways. The first and most obvious is for the music to be sung by a singer or singers, in which case the singer simply tells the story in music; words and musical sounds fit together to form the story. In this sense, then, all vocal music is program music; but we will disregard it for the time because it is the other types I want to discuss with you.

First, clearly related to song itself, is opera, operetta, oratorio and cantata. All are dramatic works involving singers, instrumentalists, and a story told through song, acting, scenery, costumes and so on. I will take up this entire subject in the next lecture.

Now we come to the last two types of program music. One is the ballet, in which the story is told by dancers while the instrumentalists play music for the dance. Much of the ballet music can be performed away from the dancers; in that case, titles of the music and the nature of the music itself must tell the story.

Then, finally we have program music for instruments only. Here the instruments sometimes imitate well-known sounds, such as bugle calls, thunder storms, bird calls, etc. Storms are good subjects for orchestras, and many famous storm scenes have been written. The "6th Symphony" of Ludwig van Beethoven, which he called "The Pastorale Symphony," has a storm scene. The storm is followed by a prayer of thanksgiving from the peasants. Listen to it; see if it doesn't sound like thunder, rain and lightning. This is the storm from Beethoven's "Pastorale Symphony."

"STORM," SYMPHONY #6, Ludwig van Beethoven (1770-1827) -- 2:57

Beethoven's storm ends, the peasants come out from under shelter and the village feast goes on--all described by sounds from the orchestra. Sometimes in program music these sounds are described by notes in the printed program of the concert, suggesting what the listener should be hearing. Sometimes there is a speaker or singer directing the audience's attention.

Our next piece does just that. It has a speaker who describes the animals pictured in the music, which is from Camille St.-Saens' "Carnival of the Animals," a series of short pieces about various animals. Each piece attempted a musical "picture" of the animal. Ogden Nash, a contemporary American poet, added the verses to the music.

In the first piece you will hear, "Elephants," St.-Saens has used the heavy timbre of the string basses to suggest the heaviness and size of elephants. Listen and see if you think this is a good picture.

"CARNIVAL OF THE ANIMALS: ELEPHANTS," Camille St.-Saens (1835-1921) -- 1:40

Another picture St.-Saens attempts is that of "Fossils"; here he uses the timbre of the xylophone as a solo instrument along with the clarinet to create the effect of dancing bones.

"CARNIVAL OF THE ANIMALS: FOSSILS," St.-Saens -- 2:00

In "Carnival of the Animals" the combination of the speaker's verses and the orchestral music creates a stronger picture of the animal being described at the moment, so here poetry and music have "joined forces" in a rather unusual but effective manner.

Another way of telling a story in music is to use a particular musical idea to represent a particular idea, thing, or person in a story, as in "Peter and the Wolf." Our next piece uses the same idea. It is called "Pictures at an Exhibition," and it was originally written as a series of short pieces for piano. Each piece was a musical picture of a drawing the composer, Moussorgsky, had seen at an exhibition. The central musical idea, called "Promenade," represents the composer himself walking--"promenading"--from one picture to the next; so "Promenade" appears between each of several of the pictures. I will play for you the "Promenade" and "Ballet of the Chicks" from "Pictures at an Exhibition."

PICTURES AT AN EXHIBITION: "PROMENADE" and "BALLET OF THE CHICKS," Modeste
Moussorgsky (1839-1881) -- 2:05

Moussorgsky wrote the "Pictures at an Exhibition" as a suite of pieces for piano in 1874; however, the suite was not a great success until 1922, when the French Impressionist composer, Maurice Ravel, arranged the "Pictures" for orchestra. The brilliant timbres he created did much to really bring the pictures to life. Ravel was an important composer, as well as being a brilliant orchestrator. Since he was an impressionist, nearly all of his music was descriptive, had a story, was "program music." After all, that's what an impressionist tried to do--create an impression of a real thing. Ravel's music was most often in the world of fantasy; the stories and the music were alive and bubbling with descriptions of various fantastic situations. Ravel's setting of the "Mother Goose Suite" includes five pieces based loosely on certain of the Mother Goose stories. Titles are given, but the rest is left to the music and the imagination of the hearer. The first piece in Ravel's "Mother Goose Suite" is entitled "Pavane of the Sleeping Beauty." Now, a pavane is a stately dance. If you know the story of "Sleeping Beauty," you should know that she didn't dance a pavane; but that doesn't bother Ravel. He tells a "sort-of" story--the listener is expected to fill out the story to suit himself. Here is the "Pavane of the Sleeping Beauty" by Maurice Ravel.

MOTHER GOOSE SUITE, "PAVANE OF THE SLEEPING BEAUTY," Maurice Ravel (1875-1937) -- 1:27

Well, it was lovely music. The title may make some difference; to some the music may have been perfect, to others it may not tell the story at all, but what it does tell of its story, it tells by suggestion, not by real sounds.

Another great writer of programmatic, descriptive music was Richard Strauss, the German expressionist composer. Strauss once boasted that he could describe in music a glass of stale water sitting on a shelf! If that sounds easy to you, try to think what the music might sound like.

Strauss wrote several works which he called "tone poems." They were large orchestral works with fairly definite programs, or stories. One of the best known is "The Merry Pranks of Till Eulenspiegel." This story is about a boy in 14th century Germany. He had the preposterous name of "Till Eulenspiegel," and he was famous as a practical joker. The only thing was that the people he played the tricks on didn't think they were funny. Finally the whole town was so outraged at him, that he was arrested, brought before a magistrate, sentenced and hanged. In the music Strauss describes some of the tricks, including the one where Till lets a whole load of beer barrels go rolling down through the main street of the town. The part we will hear commences just as Till is brought before the judge for sentencing. You can hear the judge, you can hear Till protest, you can hear the execution and you can hear Till's soul mounting up above the town. Then, curiously, Strauss has written a little coda in which it sounds as though Till has managed somehow to have the last laugh because he has become an angel. As you listen, see if you can hear all these things. Here it is, the finale of "The Merry Pranks of Till Eulenspiegel."

TILL EULENSPIEGELS LUSTIGEN STREICHEN, Richard Strauss (1864-1939) -- 3:05

The Italian composer, Ottorino Respighi, was influenced by impressionism, but in much of his music he could be quite specific in his descriptions. In his tone poem, "The Pines of Rome," Respighi actually uses real live bird sounds. The third movement of "The Pines" is called "Pines on the Janiculum Hill." At the end of this piece, the singing of real live nightingales can be heard. Listen closely; you'll hear them.

THE PINES OF ROME, "PINES ON THE JANICULUM HILL," Ottorino Respighi (1879-1936) -- 2:15

Those of us who have never had the good fortune to hear the nightingale sing can be grateful to Respighi for writing this particular piece of music the way he did; now we've had a chance to hear the nightingale, and it is beautiful indeed.

Another piece of descriptive, programmatic music that seems quite real is the "Battle on the Ice" from Serge Prokofiev's great work, "Alexander Nevsky." This music was originally written as the sound track for the movie "Alexander Nevsky," but later the music was published separately, and it is performed as a large scale cantata--like an opera, but without staging. "The Battle on the Ice" is a musical picture of the long charge of the Teutonic Knights on their heavy warhorses across the ice of Lake Chud. So regular is the beat of the horses hooves it sounds almost like a locomotive. Gradually the battle line draws closer and closer, and finally the two lines are locked in combat. This music manages to conjure up pictures of battle, even though it uses only conventional instruments and musical sounds.

ALEXANDER NEVSKY, "THE BATTLE ON THE ICE," Serge Prokofiev (1891-1953) -- 2:15

For today's last number, listen to the "Sacrificial Dance" from Igor Stravinsky's "Rite of Spring." This was the ballet which caused a riot when it was first produced in Paris in 1916. Its wild, dissonant sounds and the raging asymmetrical rhythms made it seem very hard to understand. Even without seeing the dance which would go with the music, it is possible to imagine a dance of sacrifice to such music. This is the measure of its success or failure as program music: can it carry its message alone without the help of the dance? If it can, then it can exist as independent program music in its own right, as this music has ever since 1916. Here it is, the "Sacrificial Dance" from Stravinsky's "The Rite of Spring."

"LE SACRE DU PRINTEMPS" (Sacrificial Dance) from "THE RITE OF SPRING," Igor Stravinsky (born 1885) -- 1:37

"DRAMMA PER MUSICA"

"LE JEU DE ROBIN ET MARION," Adam de la Halle (1220-1287) -- 1:18

You have just heard a pastoral play from the 13th century. It is called "Robin and Marion" and is a sort of silly story about how Marion tests Robin's love by means of a hat. This is a story told in music and it is a very early ancestor of what we now know as "opera." I played it for you because today we will deal with the problem of program music where the program is an out-and-out story set to music. By all odds, the most common form of this is the opera, operetta or musical comedy.

The Italians, who invented opera quite by accident around the year 1600, called it "dramma per musica"--that is, "drama with music." That was whay they were trying to invent--a drama with music. The name "opera" came along shortly afterward. The first really successful opera composer was Claudio Monteverdi, whom I have mentioned to you before. His first great opera was "Orfeo," but he wrote several more after that. His style of writing sounds a bit "dated" to us now, though the music is beautiful and expressive. I am going to play for you the opening of Monteverdi's opera, "The Combat of Tancredi and Clorinda." Listen particularly to the style, the types of instruments used and the expressive quality of the music.

IL COMBATTIMENTO DI TANCREDI E CLORINDA, Claudio Monteverdi (1567-1643) -- 2:15

You may have noticed that there was more "reciting" style singing than "song-like" and that never did two people sing at the same time. These techniques were worked out later, but Monteverdi gave opera a powerful push forward because he was able to make it exciting to the people of his time.

The "dramma per musica" evolved into three main forms: the opera itself, which was a dramatic production acted on stage with costumes, scenery and all the trappings; the oratorio, which was similar to opera except that it usually had a religious subject and was usually performed without costumes, acting or scenery and was performed in the oratory of the church; finally, the cantata, which began as a shorter, secular version of the oratorio, often performed as chamber music for the entertainment of the nobility. This is all a very broad subject, so we will limit ourselves to opera and its offspring, the operetta and the musical comedy.

Opera caught on very strongly with Monteverdi, and it soon spread all over Europe. By 1700 it was the principle form of entertainment--a combination of our present-day picture shows, television, live shows, and night clubs, all rolled into one. Opera was total entertainment, and it really had a lot going for it: it combined the drama with music, dance, scenic art, beautiful costumes; and at its best, it was very good.

One of the most successful operas is Gioachino Rossini's "Barber of Seville," which was written in 1816. It has been performed thousands of times since then and still is one of the most popular operas in the standard repertoire. It uses beautiful, lilting melodies and is full of rhythm and humor. In addition, it has a delightful story. Many of its songs are quite familiar. I am going to play for you an ensemble from "The Barber of Seville." In this ensemble you will hear several people singing; each expresses some idea of his own, but it all comes out right together as conversations within a group always do. As you listen to this, you should be aware of Rossini's use of rythm, his melodic lines, the clear-cut, straightforward harmonies, the timbre of the music and the formal structure with phrase lines clear and uncluttered. It is easy to understand why this music has had so much popularity.

THE BARBER OF SEVILLE: QUINTET, "DON BASILIO! COSA VEGGO!" (Don Basilio! O, the devil!), Gioachino Rossini (1792-1868) -- 2:19

"The Barber of Seville" is a good example of Italian opera. Another type, which evolved from it but is quite different, was devised and written by the German composer, Richard Wagner, who used the older term, "dramma per musica," or "music drama" rather than "opera," to describe his works. He wrote on subjects of German mythology, and his music was organized on a completely different formal idea than that of the Italian. Every important person, thing or idea in his music drama had a special musical theme which Wagner called a "leitmotif"; whenever a particular subject was on stage, its leitmotif could be heard in the orchestra. The singer generally did not sing melodic, song-like melodies, but rather a type of melody which was something like a smooth recitation over the orchestra, which really presented most of the rhythmic and melodic ideas.

I'm going to play a part of a piece from Wagner's opera, "Die Walkure." As you listen to it, you will hear the singer telling a story about a sword imbedded magically in a tree, and the orchestra is busily playing all the time. As the singer mentions different people and things in her story, their leitmotifs are heard in the orchestra. Listen for this combined activity of singer and orchestra.

DIE WALKURE, Richard Wagner (1813-1883) -- 2:18

The Wagnerian style of opera was very influential, especially with other German composers. Probably the most successful in carrying on this tradition was Richard Strauss who was also a very successful writer of tone poems. Remember his "Till Eulenspiegel"? Strauss began writing in a style very similar to that of Wagner, but his harmonies soon became more dissonant, tending more and more toward atonality and expressionism. He turned to opera after he had written his tone poems. His first opera was "Salome," based on the biblical story of Salome, Herod and John the Baptist. Oscar Wilde had written the biblical story into play form; Strauss used this play as the libretto, or script, for his opera. Salome was a real "shocker" in its time, creating an artistic furor, and it still has considerable "shock power," but it is now a standard work in opera repertoire.

I shall play a portion of it, a scene where John the Baptist can be heard shouting out prophecies from his dungeon cell under the dining hall, while Herod, his wife Herodias and her daughter Salome are finishing a dinner. There is much discussion after which Herod suddenly asks Salome to dance for him. If you listen closely, you will hear it--the mood of the music changes suddenly and he bursts out, "Tanze mich."

SALOME, Richard Strauss (1864-1949) -- 2:36

As you heard, "Salome" was written in a musical style that tended towards atonality. Strauss's later operas went further in this tendency and led naturally to the kind of works produced by the real atonalists such as Schomberg, Berg and Webern.

The Italian opera tradition, meanwhile, continued more or less on the lines of works similar to "The Barber of Seville"; that is, melody in the vocal parts was dominant and set forms were the rule. Italian opera was made up of a whole series of separate numbers, each complete in itself.

The great composer of Italian opera in the 19th century was Giuseppe

Verdi, who wrote "Aida," "La Traviata," "Il Trovatore," "Falstaff," "Othello" and several others. Verdi's operas are still among the most frequently performed. Giacomo Puccini was another very successful Italian composer. His operas include "La Boheme," "Madame Butterfly" and "Gianni Schicchi," of which you have heard a part. Puccini adopted some of the French Impressionist technique.

A contemporary Italian-American composer who has carried on the traditional style of Italian opera as it developed through Verdi and Puccini, is Gian-Carlo Menotti. Menotti's best-known work is "Amahl and the Night Visitors," which he wrote as an opera to be performed on television at Christmas. It is performed every year during the Christmas season on television, but it is also given in many live stage performances.

Listen to the miracle scene where Amahl finds out that he can walk; this is in English, so it should be perfectly understandable.

AMAHL AND THE NIGHT VISITORS, Miracle Scene, Gian-Carlo Menotti (born 1911)
-- 3:25

That scene from Menotti's "Amahl and the Night Visitors" was a typical Italian type of ensemble, involving several singers, each developing ideas of his own--all in song. Essentially, the technique is the same as that you heard in the ensemble from "The Barber of Seville." The interesting thing about Menotti's operas is that they are performed on Broadway in direct competition with other Broadway shows, and they hold their own. They are not usually performed in opera houses. Menotti himself calls his works "lyric dramas"--not operas.

By 1800 opera had developed two main lines: one was the large, serious opera, the other the somewhat lighter "comic opera" type. In serious opera, all the lines were sung, but in the comic opera, many of the lines, especially those concerned just with dramatic action, were spoken. A more entertaining kind of light opera developed from this. It had much spoken dialogue with songs interspersed in it; this was known as "operetta." And the operetta led to our "musical comedy."

One of the most successful series of operettas was produced by the English team of Gilbert and Sullivan. They wrote a whole series of operettas which satirized British politics and social life. Their operettas used a combination of the standard type of dramatic dialogue and the set forms of Italian opera, such as the recitative, aria and ensemble. I will play for you the finale of Gilbert and Sullivan's operetta, "The Mikado." You will hear that this has the same elements as the Menotti work that you just heard; the style, however, is distinctly British and uniquely that of Gilbert and Sullivan.

FINALE, THE MIKADO, W.S. Gilbert (1836-1911) and Arthur Sullivan (1842-1900)
-- 2:12

The European operetta, especially those of Gilbert and Sullivan, was very popular here in America from about 1900 on. Many American writers wrote operettas along similar lines. Gradually a distinctively American type of musical show came into being. At first they were all comedies, but more and more serious subjects have been introduced. The last thirty years has seen the production of such works as "Oklahoma," "Carousel," "The King and I," "South Pacific," "Lost in the Stars" and many others. Many of these works involve serious subjects set in the format of the "musical."

Richard Rodgers and Oscar Hammerstein have been responsible for many of the more successful musicals since about 1940. These shows, direct descendents of opera, have been very successful and are extremely popular. For our final number today, I shall play a song from "The Sound of Music" by Rodgers and Hammerstein. This is a song in which Maria is teaching the children how to sing by using solf-fa syllables. Although it is basically a simple song, it uses all the resources and techniques of composition as it has developed from the very beginning. This piece is as truly an operatic ensemble as the quintet from "The Barber of Seville" or the finale from "Amahl and the Night Visitors."

"DO-RE-MI" from THE SOUND OF MUSIC, Richard Rodgers (born 1902) and Oscar Hammerstein (1895-1960) -- 6:05

DATA SHEET 5

PROGRAM MUSIC: Music based upon a scheme of literary ideas or mental pictures which the music seems to bring out by means of musical ideas, imitative sounds, etc.

SYMPHONIC POEM: Also called "TONE POEM"--a development of the romantic composers; compositions organized of the formal structure of the symphony, but with a "program." Symphonic type pieces of program music which tell a story.

BALLET: The general name for a formalized type of dance usually performed on stage; ballet was quite well developed in 17th century France and has continued since then. It is used in opera to help with the operatic production, and it exists separately. Ballet can be said to parallel music in the sense that ballet can be organized as a formal, abstract dance analogous to some abstract musical forms, and it can be "program" ballet, in which the dance tells a story.

BALLET SUITE: A group of instrumental pieces from a particular ballet, played simply as program music without the ballet itself. Examples are: "Petrouchka," "The Rite of Spring."

SYMPHONIC SUITE: A group of musical pieces which originally were part of a stage production of some sort, either play or opera. In many cases, the music has been so good, that it has been organized by the composer into a separate "suite" and been very successful as program music in its own right. Examples: "Peer Gynt," "L'Arlesones."

PASTORAL PLAY: Forerunners of the opera; pastoral plays flourished in the

15th to 18th centuries, although they began earlier, as in the case of "Robin and Marion" (13th century). By 15th century, they included songs which told a story and dance; usually they were about shepherds or simple, rural people.

DRAMMA PER MUSICA: Literally, "drama with music"; this was what the Florentine camerata attempted to develop in an effort to reform Italian drama about 1600. They "invented" a type of play in which the lines were recited in a singing way (recitative) and accompanied by music. This was the beginning of opera.

OPERA: The word "opera" is the plural of "opus," or work, composition, etc. So, a whole group of "works," or "pieces," would be called "opera." In practical fact, since a DRAMMA PER MUSICA was a series of pieces, it came to be called OPERA--that name stuck.

OPERA SERIA: Serious opera; often on a tragic subject; usually a longer work, more "heavy."

OPERA BUFFA: Comic opera; subjects were more often everyday type of subjects than those found in OPERA SERIA. Also, some of the lines in opera buffa might be spoken. Style of RECITATIVE (recited lines) much faster in opera buffa.

GRAND OPERA: A term much misused, often in the sense of all opera, not of the operetta type. More accurately, GRAND OPERA is a French term applying specifically to French operas of the period from about 1830 to 1890. These operas were of the OPERA SERIA type, invariably contained five acts, large ballet and chorus, and always had some sort of great disaster staged. Examples are: "Samson and Delilah," "The Huguenots," "The Flying Dutchman."

ORATORIO: A very important type of work very similar to opera. Was developed by church composer for presentation in the oratory of the church, hence the name ORATORIO. As in opera, ORATORIO was a dramatic presentation, but of a biblical story. Used soloists, choruses, orchestra, but did not use staging. A narrator usually was used to fill in the dramatic part of the story. Examples of oratorios: "Messiah," "The Creation," "Belshazzar's Feast."

CANTATA: Similar to oratorio, but not on such a large scale. Often used only soloists. Began as chamber music for entertainment of Italian noblemen. By the time of Bach, the cantata had become very similar to a small oratorio and was often used as a church service.

OPERETTA: Usually thought of as using the organizing principle of opera, but that operettas are usually about light, "entertaining" ideas. Operettas usually do not use "recitative," but rather have spoken lines in place of them. Operettas originated in Europe especially in the second half of the 19th century, but they were widely copied by American composers from about 1900 to 1930.

MUSICAL COMEDY: This is the name of the adaptation of American composers to operetta. As Americans began using subjects that were typically American, they began introducing more elements of jazz, gradually changing the dramatic and musical style of the OPERETTA to that of the American MUSICAL COMEDY. Since about 1930, many of the subjects have not been real comedies, and the name has gradually changed to just plain MUSICAL.

SET FORMS: Most Italian opera, and most European operetta and American Musicals, are written in a series of individual pieces, each of which has a form. These are called "set forms."

RECITATIVE: One of the principle set forms of opera. This is the recited or prose form of singing in which the dramatic action is moved forward. It is usually not particularly emotional, since its function is to move dramatically.

ARIA: Another set form; this is the poetic, song-like part of opera or operetta in which the singer expresses the emotional development of the opera. The arias are the "songs people tend to remember" from the opera.

ENSEMBLE: In opera, the ensemble is a musical set piece organized very much like an aria, but two or more--often up to six--different people take part. It can be very complex, but it is perhaps the most unique thing about the opera, in that each person can be expressing a different viewpoint regarding the opera--they can all be singing at once--yet the composer can control the situation so that the view he wants to dominate at any moment can be done so. No other dramatic form can do what the opera ensemble can in this way.

THROUGH-COMPOSED: Music which is "through-composed" is that in which there are no "set pieces," each in a particular form. In "through-composed" music, the music follows the line of the words of the play and simply keeps on going. New musical ideas are constantly introduced to fit the needs of the moment. Wagner's music is "through-composed."

LEITMOTIF: This is a German word which can translate roughly as "main idea" for a particular person, thing or notion. For instance, there could be a leitmotif for "heaven" which would be a short musical idea which would represent heaven; whenever the notion of heaven was being discussed or referred to, the "heaven leitmotif" would be playing.

-- Time Chart --

Claudio Monteverdi (1567-1643)
1600..Florentine Camerata...DRAMMA PER MUSICA............................1600
Development of Venetian, Roman, Neapolitan Opera
Development of Oratorio and Cantata
1750..End of Baroque Period...1750
Wolfgang Amadeus Mozart (1756-1791)
Ludwig van Beethoven (1770-1827)
Gioiacchino Rossini (1792-1868)
1810..Beginnings of Romanticism...1810

Richard Wagner (1813-1883)
Camille Saint-Saens (1835-1921)
W.S. Gilbert (1836-1911) Librettist of "Gilbert and Sullivan"
Modeste Moussorgsky (1839-1881)
Arthur Sullivan (1842-1900) Composer of "Gilbert and Sullivan"
1850..1850
Oscar Wilde (1856-1900) Poet and playwright
Richard Strauss (1864-1949)
Maurice Ravel (1875-1937)
Ottorino Respighi (1879-1936)
Igor Stravinsky (born 1875)
Oscar Hammerstein (1895-1960 Librettist of "Rodgers and Hammerstein"

1875-1900: Greatest time of development of PROGRAM MUSIC
1900..1900
Richard Rodgers (born 1902) Composer of "Rodgers and Hammerstein"
Ogden Nash (born 1902) American humorist and poet
Gian-Carlo Menotti (born 1911)

FOLK SONG

THE BIG ROCK CANDY MOUNTAIN, Barry Olivier -- 1:58

That was "The Big Rock Candy Mountain" being sung and played by the well-known Berkeley folksinger, Barry Olivier. I would suppose that most of you have already guessed from hearing Barry's song that I am going to talk to you today about folksong--if that is what you guessed, you were right.

Up to now, practically everything you have heard here was "composed music"--music for and generally by the people who were rulers in one way or another--rulers in government, in the church, in society or in business. This kind of music didn't become generally available to the ordinary people until roughly the time of the Baroque Period; even then it wasn't written specifically to please them. It is this large body of composed music which we study mainly--partly because it was written down, thus it is available to us.

But, there has been another large body of music, most of which has not been written down until very recently. This was the music of the people--most particularly of the poor people: the serfs, peasants, farmers, yes, and the slaves--this is the music of "the people"--"the folk"--and we call it "folk music."

There are many forms of folk music, both instrumental and vocal, and there is folk music from nearly any place where there are people--"folk." So, it is a very big subject...one which could easily take years to study. Since it is so big, we will only look at one very small side of it, always granting that there is a great deal more that should be studied. We are going to consider folksong in America.

I want to play for you a well-known folksong by a folksinger named Frank Proffitt. He is generally regarded as a TRADITIONAL type of folk singer--"tradition" is the name of one style of folksinging. Listen now to Frank Proffitt singing "Tom Dooley."

Frank Proffitt: TOM DOOLEY -- 3:00

That version of "Tom Dooley" was the one that was copied and made into a great hit song a few years ago; but "Tom Dooley" was originally an authentic song of the people, telling a story of crime and punishment.

Now, then, what is FOLKSONG? It has been defined as "A song concerned with the interests of the folk and in complete possession of the folk." Another definition goes like this: "It is the music of life and death, of work, of love, of war and tragedy, of fun, of joy and misery, of protest. It is a chronicle of events. It tells a single story, and its chief ingredient is truth. It is universal." And one other thing--it is a song that comes from the people.

Folksong can generally be classed in a few broad styles. Closest to "the folk" is the TRADITIONAL style--the style of Frank Proffitt in "Tom Dooley." A TRADITIONAL singer, like Frank Proffitt, is a genuine member of "the folk"--one of the people who use folksong as a means of expression. Frank Proffitt, for example, is a tobacco farmer and part-time carpenter from a little country village in the mountains of North Carolina. He learned his songs from his father, uncles and other older folks who had learned them the same way. This is the traditional way in which folksong is passed on. Of course, the "traditional style" of folksinging is as varied as the number of areas and people who produce them.

A second style of folksong, a little more removed from "the folk," is the INTERPRETIVE style. In this, the singer has learned his songs from TRADITIONAL singers, and he tries to sing them as faithfully as he can, the way he heard them done, even though he himself may not have grown up with the tradition. Listen to "Down the Road" being sung by "Doc" Watson. This is INTERPRETIVE style singing.

"Doc" Watson: DOWN THE ROAD -- 2:50

"Doc" Watson was the singer, and as you could hear, his voice was quite natural--"untrained" sounding. This is a characteristic of either TRADITIONAL or INTERPRETIVE singers, since the TRADITIONAL singer is, of necessity, untrained, and the INTERPRETIVE singer imitates, as perfectly as possible, the timbre of TRADITIONAL singers. The instrumental accompaniment with "Doc" Watson was in "folk style," using fiddle and banjo, and so this is really "folk music" since it is both vocal and instrumental.

A third general style of folk song is called the STRAIGHT style. In it, the singer may have a trained voice, though there will usually be no attempt to sound "artistic." The song is usually sung in a straightforward manner natural to the singer--nothing "folksy," "arty," or "jazzy." Probably the best-known of the STRAIGHT singers is Joan Baez. In a moment I will play for you a song of hers. Listen to how simply she sings--no mannerisms--just a simple, STRAIGHT presentation of the story in song. This is Joan Baez singing a song of love and death, "The River in the Pines."

Joan Baez: THE RIVER IN THE PINES -- 3:33

So far we have heard TRADITIONAL, INTERPRETIVE and STRAIGHT styles of singing. The traditional one, sung by Frank Proffitt, dealt with crime and punishment. "Doc" Watson's song, "Down the Road," was a humorous love song of sorts, and Joan Baez sang a tragic song of love and death. These, of course, are all subjects close to "the folk."

Another style of folk song is called the ART style. In this, a trained singer presents a folk song as beautifully and artistically as he can, with carefully controlled vocal technique and usually with a very sophisticated accompaniment. Probably the best-known of the ART-folksingers is Richard Dyer-Bennet, who was trained in music at the University of California, and who later studied guitar with Rey de la Torre. Dyer-Bennet sings many types of folksongs including many from the British Isles. He also sings songs from the Appalachian mountains of southeastern United States. Listen to him in this song which tells of man's trials, crossing "The Lonesome Valley." You can hear how he brings to bear the full control of the artist singer in all ways. This is Richard Dyer-Bennet, singing "The Lonesome Valley."

Richard Dyer-Bennet: THE LONESOME VALLEY -- 3:32

Still another style of folksinging is the "POP" style. In this, many traditional folk songs, and other composed to sound like folk music, are sung in a slightly jazzy way, often with bands, orchestras, or choruses to back them up. Examples of POP-folksingers are: THE WEAVERS, THE KINGSTON TRIO, THE LIMELIGHTERS and PETER, PAUL AND MARY. Many of the POP-folksingers sing protest songs. Peter, Paul and Mary do several of these--listen to them in "If I Had a Hammer."

Peter, Paul and Mary: IF I HAD A HAMMER -- 2:15

Folk song was traditionally passed from person to person by singing and hearing, not by writing; and traditionally, no one knows the composers of folk song. We are having an interesting phenomenon right now, though, in that many people are "writing folk songs"--that is, they are writing songs that sound like folksongs. In many ways they are folksongs, except that they have not been passed on over a period of years from person to person. A very successful, well-known songwriter of this type is Bob Dylan, and there are many others as well.

We have mentioned several folk song styles; I would like to summarize them now. The are: TRADITIONAL, INTERPRETIVE, STRAIGHT, ART, POP and COMPOSED. One other type belongs properly to folksong, I think, and that is ROCK 'N ROLL. Some may argue that it belongs with jazz; but it isn't really jazz at all. It came out of the world of jazz, I believe, most particularly from the blues, which is certainly a type of folksong, too.

ROCK 'N ROLL is almost always sung, and the songs fit neatly into the general categories of folksong. For our final number I will play The Byrds in "Turn! Turn! Turn!" This is a "ROCK" treatment of a biblical text--"...for everything there is a season." The way The Byrds have handled it, with their rhythmic and harmonic treatment especially, and with the timbres they use, it becomes "composed folk song." Here it is.

The Byrds: TURN! TURN! TURN! -- 3:45

WHAT ABOUT ALL THIS JAZZ?

Ed (Kid) Ory: MUSKRAT RAMBLE -- 1:45

For those of you who didn't recognize it, that was New Orleans jazz--the first kind of jazz we had. This whole business of jazz is an interesting thing--it's the only purely American contribution to music so far, and it has had its influences throughout the western world and a good part of the Orient too.

The beginnings of jazz can be traced to New Orleans about the turn of the century, when little bands used to ride around in wagons playing in the streets of Storeyville, a disreputable part of New Orleans. These bands played marches and spirituals; but they played by ear, and they improvised on the tunes as they played, and they gave it all a "ragtime" beat which made the rhythm quite bouncy and exciting.

The piece we heard was called "Muskrat Ramble." It was an early New Orleans tune--a jazzy sort of march.

Another very important jazz form to find its beginnings in the south was the "blues." This was a sort of jazz type of Negro spiritual--and certainly "the blues" can be classed as "folk song" on most counts. One of the most important of the early blues singers was Huddie Ledbetter, known generally as "Leadbelly." He was a TRADITIONAL folk singer--one of the famous ones--and among the songs he sang were many "blues" songs. I am going to play a record of "Leadbelly" singing "Backwater Blues"--a story about a Mississippi River flood. As you hear "Leadbelly" singing this, listen to how the harmony moves in a steady pattern, very much like a church hymn. The rhythms are syncopated; that is, accents are placed "off beat"; and the melodies are sung in a "blues style" with the third scale step and the seventh lowered--"blues notes." Also, notice how each line ends shortly to be followed by a short instrumental interlude. This is "blues form."

Huddie Ledbetter (Leadbelly): BACKWATER BLUES -- 3:15

The "blues" always follows a very strict formal pattern, and, of course, marches have a strict form. When they were changed into Dixieland jazz, they kept the general outlines of the form of the march.

Jazz caught on, and it moved to New York, Kansas City and Chicago, each of which developed a slightly different jazz style of its own. By the late 1920's the "Chicago Style" was pretty much the big thing. Essentially it was still Dixieland, but the bands were bigger, some of the rough edges were smoothed off a bit. It was slightly more sophisticated Dixieland. One important thing to remember about jazz is this: it was strongly influenced by the blues, which is a sort of folk song; but even the blues used instrumental accompaniment. The point is this: jazz is fundamentally an instrumental art while folksong is essentially vocal. But jazz, at least up into the 1930's, comes closest to being our real American instrumental folk music. After that, something else occurs. Well, listen to the "Chicago-style jazz." This is a band made up of some of the jazz "greats"--Jack Teagarden, Joe Sullivan, Jimmy Noone, Dave Matthews, Billy May, Dave Barbour, Art Shapiro and Zutty Singleton. This is "I'm Sorry I Made You Cry."

The Capitol Jazzmen: I'M SORRY I MADE YOU CRY -- 3:16

"Chicago Jazz" was an improved Dixieland and had added musicians who were trained and could write music. They began making written arrangements which controlled the music more carefully. By the 1930's bands had become bigger. Arrangers were experimenting with different combinations of instrumental timbres, even as composers of the Baroque had experimented with orchestral timbres. Rhythms had become more complicated and sophisticated, too, so that from the old syncopated four-beat of Dixieland, rhythm had come to a fast twelve-beat, and this was known as "swing." By this time, Duke Ellington and Fletcher Henderson were big names in the jazz field--each had fine big bands.

By the time of the 30's, too, there were several fine jazz pianists. One of the all-time greats in this field was "Fats" Waller. "Fats" played and sang, and his style has had an enduring influence on jazz singers and pianists ever since. Listen to him in "Flat Foot Floogie." See how he really makes the swinging rhythm drive.

"Fats" Waller: FLAT FOOT FLOOGEE -- 3:05

I'm sure that many of you heard elements of the old Dixieland style in the last parts of "Fats" Waller's recording: the "hot licks" from the clarinet, and the generally rough improvising of the band on the final chorus--all of that was typically Dixieland jazz.

From 1935-1947 is a period many consider as a sort of "Golden Age" of jazz. This was the real "big band" period, carrying on from the lead of Fletcher Henderson and Duke Ellington. The big band period saw the rise of Glen Gray and the Casa Loma band, Benny Goodman, Jimmie Lunceford, Bob Crosby's Dixieland Band, Glenn Miller, Harry James, and Tommy and Jimmy Dorsey--all with fine big bands; and there were many more. These band leaders were fine performers themselves, and they used arrangers who were first-rate musicians. The music they wrote and played was carefully worked out, was complex and very advanced, but above all, the music of this period was danceable.

These big bands played for dancers by the thousands; people came to dance to them in ballrooms all over the nation. Every band had singers, but instrumental music was the big craze. To illustrate the sound, I'll play part of one of the great Benny Goodman hits, "Sometimes I'm Happy." Listen to how smoothly this is played. The musical discipline of the Goodman band was just as great as that of a symphony orchestra. The rhythm of the music is clear, steady and comfortably paced for dancing, and the melody is always emphasized, very singable. Timbre of the band is quite advanced and complex, compared to the rough timbres of Dixieland.

Benny Goodman: SOMETIMES I'M HAPPY -- 1:30

Harry James had been a trumpeter with Benny Goodman's band, but he quit it in 1938 to start his own band, which has been going ever since, still playing in Reno and Las Vegas with two or three of the original members still in it. He was one of the finest trumpet soloists of the time. Here is an example of his "big band" in the swing style, and of the solo trumpet style of Harry James. This is the James arrangement of Count Basie's "Two O'Clock Jump."

Harry James: TWO O'CLOCK JUMP -- 3:15

In spite of all the activity in "Two O'Clock Jump," its basic rhythmic beat, you may have noticed, was still comfortable, eminently danceable. This is something we seem to be losing in our more modern jazz, as I will show you.

The end of World War II in 1946 brought changing economic conditions which tended to force the "big bands" and the large ballrooms out of business. In place of the big bands, many small "combos" began to appear. With the appearance of "combos," new timbres were heard, and the players began to concern themselves with more advanced harmonies and especially with very complex rhythms.

A new jazz was heard, called "REBOP"; then came "BEBOP"--finally just plain "BOP." Styles changed almost from week to week as everyone experimented trying to find just the right sound. Finally "BOP" evolved into "COOL JAZZ" and ultimately a kind of ECLECTIC JAZZ, combining elements of Dixieland, swing, bop and cool jazz.

The really different thing about jazz since 1947 is that so much of it is like classical chamber music, or rather, modern chamber music--it doesn't seem to be dance music. Rhythms are asymmetrical, melodies are hard to find. It's just as new and obtuse as many of the avant garde "serious" works; in fact, there is even "atonal jazz." I'm going to play short portions of three or four of the modern styles, just to give you an idea of how they sound.

First let's hear a bit of "BOP," with Dizzie Gillespie and the All-Stars. This is from 1947 and is called "Leap Here."

Dizzie Gillespie: LEAP HERE -- 1:20

For all the frantic activity there, it's not easy to find a beat. Miles Davis, a St. Louis jazzman, did much to develop the sound of "cool jazz." Listen to his "Moon Dreams," and as you listen, think about how he handles the elements of music compared to early Dixieland use of the same elements. There is a world of difference, and this "cool jazz" is coming very close to "serious chamber music."

Miles Davis: MOON DREAMS -- 1:25

One of the real avant garde jazz movements is closely related to "chance music." In this, everyone plays in a jazz style, but makes his own music. What comes out is pure chance. The same piece can never by played twice. One of the leaders in this line is Joe Harriott. Listen to his piece called "Shadows." See what happens to the musical elements here.

Joe Harriott: SHADOWS -- 1:16

Well, you can see that jazz has gone "pretty far out." At this time, much of it doesn't seem to have much connection to folk music, but it's going in so many directions it's hard to tell. Like folk song it is constantly changing.

I'm going to close with a number that is fairly "far out," but not like the one you just heard. Stan Kenton has kept a "Big Band" going; in fact, it's practically a symphonic band, but he uses much of the new jazz technique of changing, asymmetrical rhythms, ultramodern harmonies and brilliant timbres to produce a kind of "symphonic jazz." This is Stan Kenton's big band in "Commencement."

Stan Kenton: COMMENCEMENT -- 3:28

DATA SHEET 6

FOLK MUSIC: Instrumental or vocal music "of the folk," usually passed from person to person by rote, rather than in written form. Instrumental folk music often in the form of "folk dance" but also used to accompany folk song. Folk music is said to exist where there is also a written "art music," but where there is only the music of "the folk," as with American Indians, it is referred to as "primitive music."

FOLK SONG: Songs concerned with the people--"the folk"--songs concerned with life and death, work, love, war and tragedy, fun, joy and misery, protest--all problems of "the folk." Folk song usually fits three special conditions: (1) it is transmitted orally, (2) it has numerous variations and is constantly changing, (3) it has existed in the oral tradition for a number of years.

-- Folk Song Styles --

TRADITIONAL: The singer has learned his songs by growing up in the locale where they are sung by the people--not commercially. He has learned them from other natural sources--parents, uncles, aunts, etc. His way of singing will be natural to the area where he lives, and accompanying instruments, if used, will also be natural to the area.

"Traditional" Singers: Texas Gladden, Emma Dusenberry, Molly Jackson, Margaret Berry, Jeannie Robertson, Phil Tanner, Frank Proffitt.

INTERPRETIVE: The interpretive singer imitates the traditional singer as closely as possible. He may not have grown up in the tradition, but he has gone to a particular area, learned the songs from traditional singers, and tries to sound as traditional as he can himself.

"Interpretive" Singers: Peggy Seeger, Bascom Lamar Lunsford, Burl Ives, Jean Ritchie, Hedy West, Jean Redpath, "Doc" Watson.

STRAIGHT: Straight singers often learn their songs from books or records, rather than directly from traditional singers. They are not concerned with trying to sound authentic; rather, they sing in an honest, straightforward manner, following whatever the music of the song seems to suggest. "Straight" singers often sing many different kinds of folk songs, since they are not identified with a particular regional style.

"Straight" Singers: Judy Collins, Bonnie Dobson, Ed McCurdy, Pete Seeger, Paul Clayton, Joan Baez.

ART-FOLK: Concert singers with cultivated, trained voices who sing folk songs with polished texts and style to appeal to an artistically sophisticated audience.

"Art-Folk" Singers: Alfred Deller, Richard Dyer-Bennet.

POP-FOLK: "Pop" singers adapt folk songs to the style of popular music. They are often accompanied by bands and choruses.

"Pop-Folk" Singers: Odetta, The Weavers, Kingston Trio, The Limelighters, Peter, Paul and Mary.

COMPOSED FOLK SONG: Many people are writing pieces which sound like folk songs but are actually new pieces. They usually find their subject-matter in typical folk sources, and the musical style conforms to folk style.

Folk song composers: Bob Dylan; many Rock and Rollers.

-- Other Terms --

MANNERISM: In singing or playing, little personal touches or tricks of performance style peculiar to the individual performer.

VOCAL TECHNIQUE: The particular way a singer uses his voice. It may be a natural, untrained technique, or it may be highly trained and very consciously controlled use of the voice.

PROTEST SONG: A type of folk song which raises protest against some conditions of society. Many protest songs are of the "composed folk song" type, though there are a good number of older protest songs that conform to all the basic requirements of pure folk song.

JAZZ: A type of Afro-American music descended from Negro and Creole folk musicians of the New Orleans area. The first signs of jazz were between 1900 and 1914. Jazz had two main sources in New Orleans music: (1) ragtime, which was instrumental, and (2) "the blues," which was vocal. The name "jazz" probably comes from Creole use of the French word "jaser"--"to gossip, or chatter." Negroes and Creoles of New Orleans used the word to mean "speed things up" in their music--"to jazz it up."

NEW ORLEANS JAZZ: The style of jazz from about 1908 into the 1920's--combined "ragtime" and "the blues" in a free-wheeling improvisational style in which everyone in the band tended to improvise at the same time. This music was pretty "rough and ready," but it was very much alive.

CHICAGO JAZZ: Similar to New Orleans jazz but became dominant in latter half of the 1920's. This was a "take-your-turn" form of hot jazz in which each member of the band improvised on the tune, but it was done in turn with the rest of the band in a supportive position.

SWING: Swing was the style of the mid-30's. It had many elements of hot jazz even though it was calculated, planned, carefully written music. It involved more virtuosity by the players, had a slightly "slicker" sound, and a subtler beat. It was very danceable.

REBOP, BEBOP, BOP: The jazz of the middle 40's. Lyrics tended to be very nonsensical. BOP was somewhat cooler than swing, softer than much hot jazz, and used very advanced harmonies and rhythms with much contrapuntal playing.

COOL JAZZ: An extension of the techniques of BOP. Rhythms ceased to be rigidly even, music was generally rather quiet, harmonies very extreme, great freedom of melodic invention. COOL JAZZ usually played by small groups--trios or quartets. This is jazz for listening, not for dancing.

ECLECTIC JAZZ: The word "ECLECTIC" means "drawing together from many different sources." Eclectic Jazz is a type that combines elements of New Orleans and Chicago jazz, swing, bop and cool jazz. It's a little more danceable than bop or cool jazz and more interesting musically than Dixieland.

IMPROVISING: Making up variations and changes in the chord patterns and melodies of a jazz tune. Jazz depends heavily on this element of improvisation; in fact, it is the chief difference between jazz and other forms of music.

BLUES: A style of vocal music coming from the southern Negroes. Probably came from the "cry," the "holler" and from work songs and spirituals. Blues had texts at first; after a while, instrumental pieces were written in the style of the blues.

BLUES STYLE: Generally melancholy emotional content; use of "blue notes" (flatted 3rd and 7th scale steps); three-line verse form with first two lines the same; and "the break"--an instrumental interlude at the end of each short line.

RAGTIME: One of the immediate ancestors of jazz ("the blues" was the other). Ragtime was instrumental music, consisting of tunes such as marches and minstrel show dances being played with rhythmic patterns which were typically Negro "jazz" patterns to "speed up" the music. Technically, the name for this rhythm pattern is SYNCOPATION.

SYNCOPATION: Deliberate shifting of accents so that the fall on weak beats within the rhythm pattern.

BIG BANDS: Normal instrumentation could include four trumpets, four trombones, five saxophones, three violins, piano, bass and drums. Each "big band" had its own sound, so there were additions and alterations to the list above. This "big band" instrumentation was typical from 1935-1947.

SMALL COMBOS: Various little groups of three to five players, usually with only one of a kind; for instance, one brass, one reed, one bass, one drummer. "Small combos" were used primarily in bop, cool jazz and now in the "NEW THING"--experimental jazz involving almost total "chance music."

AVANT-GARDE: Literally, "advance guard"--that is, the musicians (artists, writers, etc.) who are way out in front, experimenting. Usually they are too far ahead of the audience to be popular. Eventually the audience "catches up," and they cease to be "avant-garde" unless they have moved on to something "further out."

IMPRESSIONISM AND NEO-CLASSICISM

LA MER, Claude Debussy (1862-1918) -- 2:05

That music was by the French impressionist composer, Claude Debussy. It was called "La Mer"--"The Sea"--and was a musical impression of the sea; not an attempt to give a literal picture of the sea, but only an impression of it. Today we will be studying this whole notion of impressionism. Impressionism was primarily a French movement in style, and it came during the last quarter of the 19th century as a reaction against the emotional excesses of German romanticism. The impressionist movement began first with the painters and poets--Claude Monet, Camille Pisarro, Edouard Manet, Edgar Degas and Auguste Renoir are the painters usually considered as "the impressionists." They tried to paint their own momentary impressions of a scene with spontaneity and freshness, and to find this quality, they went to the outdoors and to sunlight. They used bright, strong colors, and they painted from life.

At the same time, the "symbolist" poets had turned away from romanticism. The French poets had been strongly influenced by the American, Edgar Allan Poe, who was introduced into France by Baudelaire. The poets, Mallarme and Verlaine and Rimbaud particularly, brought language into the subtlety of nuance which music had already achieved. These poets, called "symbolists," used symbolism in a manner similar to that of the painters: to create spontaneous impressions. Musicians were soon caught up in the same movement. Debussy revolted against the hyperemotional romanticism of the Germans, especially Wagner, and attempted to write music which would picture the world around man, rather than his romantic emotions. This "picture of the world round about" was impressionism. So, "The Sea" is quite a typical impressionist subject. Debussy wrote many other works, nearly all of them of the descriptive, impressionistic type--works such as "Afternoon of a Faun," "Iberia," "Three Nocturnes" and so on.

Another very successful impressionist composer was Maurice Ravel. In a moment I will play the "Malaguena" from his "Spanish Rhapsody." You can hear that he uses the musical elements--rhythm, melody, harmony, timbre and form--in a very advanced way, although he is writing music which is descriptive of a Spanish folk dance, the Malaguena. Listen to it and see if you don't receive a very real impression of Spanish music--a picture of Spain, in music.

MALAGUENA, from SPANISH RHAPSODY, Maurice Ravel (1875-1937) -- 2:20

Debussy and Ravel are the most eminent of the impressionist composers, but there were many others who followed, who used many stylistic elements of impressionism, such as the types of harmonic patterns, the style of orchestration and the basic descriptive approach. The impressionists revolted against German romanticism, but, in the end, they really only substituted a more sophisticated French form of romanticism itself because, like the German romanticists, the French impressionists loved beautiful sounds of timbres. They rejected "classical" rigid forms, they emphasized mood and atmosphere, they were fond of program music and poetic titles, and, like romanticism, they tried to draw music, painting, and poetry as closely together as they could. So, in the end, impressionism must be considered a French type of romanticism of the late 19th century; and it dominated music during that period.

Another French composer, identified mainly with a later group but using many impressionist techniques, was Jacques Ibert. His most famous work is called "Escales"--"Ports of Call"--and is an impressionist piece about seaports in the Mediterranean, a very impressionistic type of subject. This is a portion of "Escales" about the Sicilian port of Palermo.

PALERMO, from ESCALES, Jacques Ibert (born 1890) -- 2:17

While Impressionism was primarily a French movement, its effects were felt in other countries too. The Italian composer most associated with Impressionism was Ottorino Respighi whose best-known works are the tone poems, "Fountains of Rome" and "Pines of Rome." You may recall hearing "The Pines of the Janiculum Hill" with live nightingales singing. I am going to play now "The Pines of the Appian Way." This is an impressionistic piece which really tries to create an impression of the Roman legions marching along the famous Appian Way between long rows of pine trees. As you hear this, see whether the music is successful in creating this impression.

PINES OF THE APPIAN WAY, Ottorino Respighi (1879-1937) -- 2:05

The English composer, Frederick Delius, is generally considered to be an impressionist. Like Debussy, he had a fondness for modal scales and for poetic landscape and "twilight" sounds and moods. Like Debussy, he was opposed to the complications of German romanticism. His music is more emotional than Debussy's, however, and introduces English folksong. Many of his melodies have a "folk" quality about them, though they are actually composed. Much of his music has a clarity and simplicity to it which is quite charming. This can be heard in the next piece I will play. This is the Serenade from "Hassan" by Frederick Delius.

SERENADE, from HASSAN, Frederick Delius (1862-1934) -- 2:45

Spain produced at least one composer who was strongly influenced by impressionism. This was Manuel de Falla, who was befriended by both Debussy and Ravel. De Falla wrote music about Spain. All of his music contains impressions of Spain, and in many ways the music is truly impressionistic, since it does not really use Spanish folk music. It is written in the manner of Spanish music; that is, it uses rhythms that are characteristic of Spain. Melodic lines resemble Spanish dances and songs, and the harmonies and timbres seem to imitate Spanish use of guitar and percussion. One of de Falla's best-known works is the ballet, "The Three-Cornered Hat." This is the opening part of it, a section called "The Neighbors."

THE THREE-CORNERED HAT, Manuel de Falla (1876-1946) -- 2:05

So far we have been hearing examples of impressionist music, and you may remember I made the point that impressionism really turned out to be a sophisticated French form of romanticism. About the turn of the century, there came a trend to get away from romanticism, either in the German form or in the guise of French impressionism.

Several "-isms" came along as reactions to romanticism and its French form, impressionism. One of these was "objectivism" in which music and art tried to see and portray the world "as it really is." The artist was supposed to keep his own feelings clear out of the work. A cult of pure form developed, especially in art, with the "cubists" and the "constructivists."

Another "-ism" which burst forth in this reaction was "primitivism" in which artists and musicians drew their inspirations from African sculptures and music. Igor Stravinsky was the great musical primitivist at that time, with his monumental work, "The Rite of Spring," so primitive that it set off a riot at its first performance.

"Urbanism" and "machine music" were other reactions to romanticism, and we will hear examples of some of this in a later lecture.

Finally, humor and satire set in, and music turned to a style which was called "neo-classicism." The "high priest" of the neo-classicists was Erik Satie, who wrote parodies of impressionist music. His primary aim was to write music which was simple, direct, well-ordered, entertaining and pleasing. So, he avoided the richness of orchestration of the impressionists and wrote for smaller groups. A good example of this anti-romantic, anti-impressionist music is Erik Satie's "Games of Gargantua." Listen to it.

GAMES OF GARGANTUA, Erik Satie (1866-1925) -- 1:50

Satie's music emphasized clarity and simplicity, somewhat as music of the Classical Period had done. For this reason it and music like it came to be called "neo-classical." Satie had a number of admirers, especially a group in Paris known as "The Six." They all believed in his ideas about the principles of neo-classicism and were full of the idea that music should be witty and entertaining. All were fascinated with the new American jazz which had made its way to Europe by the 20's, and they were experimenting with jazz in their music.

Francis Poulenc, the youngest of "The Six," wrote much music, all of it very French, elegant, clear and witty. Listen to the "Divertissement" from Poulenc's "Sextet for Piano and Woodwinds," and you will hear an excellent example of this type of music of the 20's...the French neo-classical music, based on elegance, clarity, wit, satire and entertainment.

DIVERTISSEMENT, from SEXTET FOR PIANO AND WOODWINDS, Francis Poulenc (1899-1963) -- 2:00

Still another form of neo-classicism came in the music of the German composer, Paul Hindemith. Hindemith, like many other neo-classicists, used the classical forms rather strictly (sonata, concerto, symphony, etc.), since he felt that form was essential to the clarity of his work. Also, Hindemith, like other neo-classicists, attempted to restore a balance between the elements of music. Where the romanticists had used harmony, rhythm, and timbre for their own sakes, the neo-classicists made them part of the entire musical idea and design.

One of Hindemith's greatest works is his opera, "Mathis der Mahler"-- "Mathias the Painter." After he had written the opera, he arranged music from it into the form of a symphony. I am going to play for our final number a portion of this symphony. This is a good example of the highly developed neo-classical style of Hindemith. In it all elements--rhythm, melody, harmony, timbre and form--are made to conform to the neo-classical ideals of clarity, straightforwardness and order. This is the finale of Paul Hindemith's symphony, "Mathis der Mahler."

FINALE, MATHIS DER MAHLER, Paul Hindemith (1895-1963) -- 3:45

EXPRESSIONISM AND ATONALITY

MOONSTRUCK, from PIERROT LUNAIRE, Arnold Schoenberg (1874-1951) -- 1:40

which "There is only one greatest goal," wrote Arnold Schoenberg, "towards
answer the artist strives: to express himself." Expressionism was the German
from r to French impressionism. The French depicted impressions received
used the outer world; the Germans dug down deep within. The impressionists
realit a highly refined nature poetry while the expressionists rejected the
inner ty of the outer world and attempted to express the reality of man's
only nature. Inner experience was regarded by the expressionists as the
reality.

of the Painting and poetry began the expressionist movement, as they had that
Freud e impressionists, but expressionism centered on Vienna where Sigmund
was developing his theories of the unconscious nature of man.

Expressionist painters of that time were Wassily Kandinsky, Oscar
Dehmel thka, Paul Klee and Franz Marc; poets were Stefan George and Richard
notion l. The painters painted distorted visions that defied traditional
form ns of beauty, and musical expressionism likewise rejected what had be-
melody been thought beautiful. This rejection led to new notions of rhythm,
the m y, harmony and timbre, form and tonality. In fact, atonality became
nique. usical language of the expressionists in the form of the "12-tone tech-

the r You heard, in the opening piece from Schoenberg's "Pierrot Lunaire,"
sominother extreme vocal style called "sprechstimme," and the angular,
one of ly unmelodic lines of melody. This piece, "Pierrot Lunaire," w
overwh f the first great expressionist pieces. It showed the traditional
fects belming high pitched emotions and the strange, macabre, grotesque ef-
a sort of which the expressionists were so fond. Actually, expressionism is
most of of "last gasp" of German romanticism--it emphasizes and overdoes
of the romantic characteristics.

identi Schoenberg wrote "Pierrot Lunaire" in 1912 when he was most strongly
techni ified with expressionism. Even though he worked out the "12-tone
terms ique" in the years that followed, he always attempted to use it in
what; of the older diatonic forms. By 1942 he had modified his views some-
use of his writing had absorbed many neo-classical features, including the
Opus 4f the standard forms. In that year--1942--he wrote his Piano Concerto,
is much. Even though he uses his famous "12-tone technique," the concerto
As you h less "difficult" to hear, less "far out" than "Pierrot Lunaire."
you and listen, try to find the scale and the key center of the piece. If
berg' know how to sing syllables, try to find the "do"; this is Arnold Schoen-
s Piano Concerto, Opus 42.

PIANO CONCERTO, OPUS 42, Arnold Schoenberg -- 3:15

the m Prior to the expressionists, composers had attempted to make music fit
atural inflections of their texts when they wrote songs. Expression-

ist composers deliberately distorted normal accentuations of words to secure "a reality of the subconscious," as they thought. Also, expressionism tended to use violent plots or subject-matter full of violence and unusual behavior. A fine example of this is the expressionist opera "Wozzeck" by Schonberg's friend and pupil, Alban Berg. In "Wozzeck" there are all the expressionist elements: the inner emotional turmoil of the hero, Wozzeck; his gradual mental breakdown; the murder of his mistress; and his own eventual suicide, together with much incidental violence, cruelty and strangeness. The music, using the 12-tone technique, expresses the emotional uncertainty and agony of the players very well. The opera is a great masterpiece.

I will play a part of Scene 3 for you. It opens with an orchestral interlude; then the scene begins on the street in front of Wozzeck's house. Marie is in front of the house. The regimental band comes marching by. Marie flirts with the Drum Major, and Wozzeck threatens her. Listen to it. See how, in one vast musical fabric, the composer shows all these different elements. This is real expressionist music.

SCENE 3, from WOZZECK, Alban Berg (1885-1935) -- 3:45

Just as Paris was the center of impressionism, so Vienna was the center of expressionism; and as the influence of impressionism spread, so did that of expressionism and the musical language of atonality. An Italian composer who adopted the expressionist atonal style was Luigi Dallapiccola. His music is particularly interesting because it combines the Italian lyrical tradition with the severity of the Viennese 12-tone school. Dallapiccola's melodic lines are less jagged than those of the Viennese atonalists. He leaves the 12-tone row when it suits his purposes. His music is emotional and exciting. I am going to play for you one of his "Songs of Captivity." This is a song based on a text by Mary Stuart, who was imprisoned in the Tower of London prior to her execution. The emotional expression is certainly in the main stream of expressionist music.

CANTI DI PRIGIONIA, Luigi Dallapiccola (born 1904) -- 3:13

Dallapiccola had studied with both Alban Berg and Anton Webern, the two principal friends and students of Schonberg. Berg had considerable success as an opera composer with "Wozzeck," and Webern has become the model for all the atonalists since his time. Actually, Schonberg had devised the 12-tone system, but as he grew older, he began incorporating more tonal elements into his writings. Webern became the real, all-out atonalist; his technique of writing became more and more "serialized"; that is, all elements based on the repetition of the 12-tone series. Nearly all composers interested in 12-tone writing have followed Webern's techniques. He died in 1945 in an unfortunate accidental shooting, and Igor Stravinsky said of his death, "The day of Anton Webern's death should be a day of mourning for any receptive musician." This from Stravinsky!

Webern's music is regarded as reaching perhaps the purest style of 12-tone writing. I am going to play for you a portion of his "Variations for Orchestra." As you listen to it, be particularly aware of the melody to hear how angular it is, with great jagged leaps. Also listen for harmony--if there are any large blocks of chords. Another thing to hear is how the timbre is constantly changed, many times almost note by note. This music is "cool," comparatively unemotional, and it takes careful listening. Here it is: Anton Webern's "Variations for Orchestra."

VARIATIONS FOR ORCHESTRA, Anton Webern (1883-1945) -- 3:30

Webern's output was small. His complete works are recorded on four long-playing records; but within the space of those works, he has left music which is a model to composers the world over. Much of his music was vocal, and you can imagine that the melodies are somewhat difficult to sing, judging from the type of melodic line in the "Variations for Orchestra." Here is a song by Webern: it is called, "Du, dir ichs nicht sage"--"You whom I do not tell."

DU, DIR ICHS NICHT SAGE, Anton Webern -- 0:54

One of Webern's disciples in the younger generation is Karlheinz Stockhausen, a German composer born in 1928. Stockhausen has continued Webern's technique of serialization and has attempted to gain minute control over all elements of the music; the series includes not only pitches, but rhythm, timbre, dynamics and densities. In his "Zeitmasse"--"Tempos"--written in 1956, Stockhausen has managed this almost total serialization of the music, yet it has a delightfully improvised sound. This is Karlheinz Stockhausen's "Zeitmasse."

ZEITMASSE, Karlheinz Stockhausen (born 1928) -- 2:33

Another follower of Webern's is the French composer, Pierre Boulez. He turned to 12-tone writing because it seemed to offer the greatest freedom. Like Stockhausen, Boulez has worked to achieve total serialization with infinite variety. Boulez has been particularly concerned with rhythm and has developed a theory of what he calls "rhythm cells"--organized in a serial manner. The result is that his music is very free and supple, rhythmically, as in oriental music. Also, Boulez is very fond of the timbre of bell and percussion sounds as in the oriental gamelan orchestras; so much of his music contains the clear timbre of bells and other percussion instruments.

Boulez's best-known work is "Le Marteau sans Maitre"--"The Hammer without a Master." This is music to the surrealist poetry of Rene Char and bears many resemblances to Schonberg's "Pierrot Lunaire" of 1912. "Le Marteau" is a series of short pieces, alternating between instrumental works and short songs with instrumental accompaniment. I am going to play for you the introduction; listen to the free rhythm, the angular melodies and the interesting timbres. This is "Le Marteau sans Maitre" by Pierre Boulez.

LE MARTEAU SANS MAITRE, Pierre Boulez (born 1925) -- 1:27

20TH CENTURY EXPERIMENTAL MUSIC

BAHNFAHRT (Train Ride) -- 1:30

Did that sound like a train in a film cartoon? It was supposed to; it was the sound track of a film produced in Germany in the 1920's and was an experiment in the use of conventional musical instruments to sound like something else. You've heard many pieced like it on television and at the movies, I'm sure. It was intended that it should do two things: first, it should sound like a train; second, it should be humorous, in keeping with the nature of the cartoon. If it did those two things, it was successful.

Other composers attempted even more ambitious works in which they tried to make the orchestra sound like machines. One of the most successful pieces of this type is by the Russian composer, Alexander Mossolov. In 1928 Mossolov wrote a piece for symphony orchestra entitled, "Symphony of Machines, The Steel Foundry." In this piece the only sound producer not regularly found in the orchestra is a thin sheet of metal. Listen to how successfully Mossolov makes the orchestra sound like a factory. He has to use all the standard elements of music, but he concentrates on timbre in order to produce his effect. Here is "The Steel Foundry."

THE STEEL FOUNDRY, Alexander Mossolov (born 1900) -- 1:17

Melody has been pretty well suppressed in "The Steel Foundry," although there were occasional bits of it. Rhythms were rather strong and tended to be quite repetitious, as they would be in a factory where the same gears go round and round at the same speed. Harmony was there, but not in very familiar form; and form itself was also there, although you probably didn't get a chance to recognize it.

This business of imitating sounds of our environment started long before 1900. Remember Beethoven's storm in the "Pastorale Symphony"? That was from the very early 1800's, and there were many earlier attempts than that. However, from the 1920's we have gone more and more in the direction of incorporating non-conventional sounds into our music.

One of the leaders in this field is Edgar Varese, who composed music using many types of "sound producers" other than the conventional instruments. Varese regarded all sound as potentially musical and felt that we limit ourselves severely by sticking to a 12-tone division of pitches in a scale and by sticking to our conventional instruments. Varese has written many works using both conventional and non-conventional instruments. One of his works of this sort is called "Ionization." It was written in 1926 and uses some conventional percussion instruments plus some other rather conventional musical sounds, which I'll let you listen for. Notice what happens to such things as melody and harmony in this piece. This is Edgar Varese's "Ionization," written in 1926.

IONIZATION, Edgar Varese (born 1885) -- 0:55

Our conventional five elements of music don't really operate in music of this type very well, and Varese doesn't use them in the old sense, either; instead, he recognizes four elements: timbre, pitch, intensity and duration. Timbre is still the same element, and this is what many experimenters are most concerned with now. Pitch is similar to the older concept of pitch in both melody and harmony, except that the experimentalists use an infinite range of pitches, including sliding pitches such as you heard in "Ionization." Scales, as you probably realize, use pitch in stepwise manner. Intensity is loudness or softness of the sound, and duration means "how long or how short a sound or silence is." Varese, and many others who have followed his lead, use these four elements primarily, although they are still concerned with the formal structure of their pieces.

The young composer, Gyorgy Ligeti, has written a work for symphony orchestra which he calls "Atmospheres." This uses the same sound concepts as those of Varese; that is: timbre, pitch, intensity and duration. Timbre in this piece is so different, it is not easy to tell whether this is really an orchestra; and pitches are confused by the use of so many at once. Intensities are amongst the principle elements of this piece, and durations are strongly controlled. Listen to it with these elements in mind. This is Gyorgy Ligeti's "Atmospheres."

ATMOSPHERES, Gyorgy Ligeti (born 1923) -- 2:02

Still another type of experimenting has been that in which composers use conventional instruments in unconventional ways to produce new sounds. The piano has had much of this type of activity. One of the leading experimenters here is the American, Henry Cowell, who has written works using "tone clusters"--great groups of notes all next to each other--and playing on the strings of the piano without using the keys. Here is a piece of his in which he slides his fingers up and down the strings to produce a very ghostly effect. This is Henry Cowell playing his piece, "The Banshee," on a grand piano.

THE BANSHEE, Henry Cowell (born 1897) -- 1:39

Another experimenter is John Cage who wrote and played pieces for pianos he had altered by adding bells, rubber and wooden objects, and by changing the timbres and pitches. The result is that one of Cage's "prepared pianos" often sounds like an oriental gamelan orchestra, rather than like a piano. The next piece I will play for you is being performed on a Steinway grand piano, altered by John Cage. Melodies and harmonies are not of importance in this music; primarily it is a music of timbres and rhythms; and, as such, it sounds like "primitive" music. This is John Cage playing a "prepared piano" in his composition called, simply, "Dance."

DANCE, John Cage (born 1912) -- 1:45

John Cage is known not only as a preparer of pianos, but more importantly as a leader in experimenting with "chance music." Many musicians are interested in the chance element in music, even as artists are not experimenting with "happenings" in art. In chance music certain elements are prescribed and controlled, but much of the music is improvised within the limits of the controls. It is made up on the spot by the performers. The result is absolutely original music which will never be performed exactly that way again, since chance will not reproduce it exactly. Jazz musicians have always had a certain amount of chance in their music, because jazz always uses improvisation. Even the old New Orleans bands actually had much chance music, since everyone improvised on the chorus at once. On the jazz lecture I played some modern jazz experiments with chance music--you may remember.

John Cage uses conventional instruments and all sorts of other sound sources for his experiments with chance music. The piece I am going to play is called "Aria with Fontana Mix." It is a combination of two tapes: one of a song he wrote, and the other a tape of many sounds which he called "Fontana Mix." By combining the "Aria" tape with the "Fontana Mix" tape, he has come up with a new one, which he calls "Aria with Fontana Mix." Listen to it now.

ARIA WITH FONTANA MIX, John Cage (born 1912) -- 1:45

Well, many of you may like it, and many may not. The fact is, Cage and others like him are searching out and finding ways of making new sounds which may be exciting and usable in the new music. No one claims that this is necessarily beautiful, or even that it is art--although it may be--but these experiments are not irresponsible, and they may well lead us to new things in music.

Another chance music composer is Larry Austin who is a professor of music at the University of California at Davis. He has written a piece called "Improvisations for Symphony Orchestra and Jazz Soloists." In this some of the music is written out in conventional style but much of it is to be completely improvised; but there are "control points." This combines elements of jazz, symphony and chance all in one.

IMPROVISATIONS FOR SYMPHONY ORCHESTRA AND JAZZ SOLOISTS, Larry Austin (born 1930) -- 1:45

The last group of experimenters to consider at this time is the rather large group of electronic composers. Their principle instrument is the magnetic tape recorder; and since the perfection of the tape recorder, a whole new field of musical composition has opened up. The electronic composers use as sound sources conventional instruments, prerecorded noise, or electronic sounds from various types of sound generators. Then they do all sorts of marvelous things to the sounds by means of the tape recorder and ultimately end up with a composition on tape, something in the manner of a motion picture being on film.

Columbia University has had an experimental tape laboratory for some years. Vladimir Ussachevsky and Otto Luening have been pioneers in this field and have directed experiments at the Columbia laboratories for some time now. In the piece I am about to play, Otto Luening has recorded the sound of a flute, then he has transposed and transformed the flute sounds by means of manipulations of the tape, combining them into a beautiful piece he calls "Fantasy in Space."

FANTASY IN SPACE, Otto Luening (born 1900) -- 1:30

The Dutch composer, Henk Badings, has written conventional music, music for conventional and electronic instruments, and a good bit of all-electronic music. I am going to play two pieces of his to show how the differences are. The first piece is for violin and two sound tracks. In actual fact, the piece is like a concerto in which the violin is the soloist, and the two sound tracks accompanying the soloist take the part of the usual accompanying orchestra. Listen to it with that thought in mind, that essentially this is a violin concerto. This is Henk Badings' "Capriccio for Violin and Two Sound Tracks."

CAPRICCIO FOR VIOLIN AND TWO SOUND TRACKS, Henk Badings (born 1907) -- 2:40

A completely electronic work by Badings is his ballet suite, "Evolutions," in which he uses five electronic sound generators as his sound sources. Then he has recorded, re-recorded, transformed the tapes and ultimately ended up with six pieces which are called "Overture," "Air," "Ragtime," "Intermezzo," "Waltz," and "Finale." So, even though the instrument is totally electronic, he still uses older, conventional forms in this piece. I thought you might be interested to hear the one he calls "Ragtime." This is a sort of jazzy piece, based on New Orleans jazz. This is the "Ragtime" from Henk Badings' Ballet Suite, "Evolutions."

RAGTIME, from EVOLUTIONS, Henk Badings -- 3:40

DATA SHEET 7

IMPRESSIONISM: A style in art, literature, and music in which detail is avoided. The artist attempts to re-create the impression of what he is depicting, leaving the details to the observer. Primarily a French style beginning in art and literature about 1883; in music about 1885. It began to lose ground about 1915. Impressionism was essentially the last form of romanticism in France.

OBJECTIVISM: A style of painting which was a reaction to impressionism and corresponded roughly to neo-classicism in music, which will be described below. The objectivist painter tried to paint things exactly as they were--photographically.

CUBISM: Twentieth century painting style which followed objectivism. The artists attempted to break up light and color and show them on various geometric planes.

PRIMITIVISM: Excessive emphasis on attempts to re-create a style similar to African and Polynesian folk-art. Primitivism was found in painting and music. The most famous example is probably Stravinsky's "The Rite of Spring."

EXPRESSIONISM: Essentially an Austrian-German movement a little later than, but more or less parallel to, French impressionism. This was the German "last gasp" of romanticism and found its impetus in the writings of the Viennese psychoanalyst, Sigmund Freud. Expressionism is supposed to record and express the inner psychological and emotional experiences of the artist. Expressionists in painting and music tended to "throw away the rules" in order to give themselves the greatest freedom of expression.

SERIAL MUSIC: Also called ATONAL or 12-TONE MUSIC. Based on principles developed by Arnold Schonberg, it is a harmonic and melodic system using pitches arranged in series; that is, in serial order.

MACHINE MUSIC: Some twentieth century composers experimented with trying to express the "machine age" through music. They attempted literal musical pictures, at times. "The Steel Foundry" is a good example.

MUSIQUE CONCRETE: Music based on sounds from nature or the environment and on electronically generated sounds. "Musique concrete" is a term which was originally used to show it as the opposite of "abstract music" made by conventional musical instruments.

INTENSITY: A way of describing a characteristic of sound. In its simplest sense, it refers to loudness and softness, but it also means timbre. It is considered by many avant garde composers to be, with "duration," a principle element of music.

DURATION: A way of describing how long a sound or silence lasts. Many composers consider "duration" to be an element of music along with "intensity."

TONE CLUSTERS: Use of many notes sounded at once, all very close together in pitch. Henry Cowell and Ernst Krenek are most associated with this type of music.

CHANCE MUSIC: Music created in performance by chance combinations of sounds from many sources. The composer of chance music selects sound sources, provides a minimal amount of direction, and allows sounds to be combined by chance. John Cage is the leader in this field.

ELECTRONIC MUSIC: This is a form of "musique concrete." It is generated entirely by various types of electronic instruments, including computers, and it is produced by electronic instruments, most particularly the magnetic tape recorder. Much interest is centered on electronic music by many of the present avant-garde composers.

-- Impressionists and Neo-Classicists --

Composers

Claude Debussy	French Impressionist	1862-1918
Frederick Delius	English Impressionist	1862-1934
Erik Satie	French Neo-Classicist	1866-1925
Maurice Ravel	French Impressionist	1875-1937
Manuel de Falla	Spanish Impressionist	1876-1946
Ottorino Respighi	Italian Impressionist	1879-1937
Jacques Ibert	French Neo-Classicist	born 1890
Paul Hindemith	German Neo-Classicist	1895-1963
Francis Poulenc	French Neo-Classicist	1899-1963

Painters

Camille Pisarro	French Impressionist	1830-1903
Edouard Manet	French Impressionist	1832-1883
Edgar Degas	French Impressionist	1834-1917
Claude Monet	French Impressionist	1840-1926
Pierre Renoir	French Impressionist	1841-1919

Symbolist Poets

Stephane Mallarme	French	1842-1898
Paul Verlaine	French	1844-1896
Arthur Rimbaud	French	1854-1891

-- Expressionists and Atonalists --

Sigmund Freud	Austrian Psychoanalyst	1856-1939

Composers

Arnold Schonberg	Austrian Expressionist-Atonalist	1874-1951
Anton Webern	Austrian Expressionist-Atonalist	1883-1945
Alban Berg	Austrian Expressionist-Atonalist	1885-1935
Luigi Dallapiccola	Italian Expressionist-Atonalist	born 1904

Painters

Wassily Kandinsky	Russian Expressionist	1866-1944
Paul Klee	German-Swiss Expressionist	1879-1940
Franz Marc	German Expressionist	1880-1916

Poets

Richard Dehmel	German Expressionist	1863-1920
Stefan George	German Expressionist	1868-1933

-- Experimental Composers, 20th Century --

Edgard Varese	French, Musique Concrete	born 1885
Henry Cowell	American, Tone Clusters	born 1897
Otto Luening	American, Electronic Music	born 1900
Henk Badings	Dutch, Electronic Music	born 1907
John Cage	American, Chance Music	born 1912

Pierre Boulez	French, Serial Music, Electronic Chance Music	born 1925
Karlheinz Stockhausen	German, Serial Music, Electronic, Chance Music	born 1928

BOOK LIST FOR MUSIC AS A HUMANITY

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Flemming, William, ARTS AND IDEAS, 1962.
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Grout, Donald Jay, A HISTORY OF WESTERN MUSIC, 1960.
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